THE LANCET.

LONDON: SATURDAY, SEPTEMBER 3, 1887.

ADDRESS TO MEDICAL STUDENTS.

IT becomes our duty to-day to give our annual address to those engaged in the studies necessary for obtaining admission to the profession of medicine. On former occasions we have dwelt upon the choice of a medical school, the selection of class-books, and the general *technique* of the professional curriculum. To-day we propose to make a few observations on the spirit in which medical study should be conducted, and then to pass on to the consideration of the life-work for which that study is designed to be the fitting preparation. We speak not alone to those who are students in the strict sense of the term. In a very real sense we are all, young and old, medical students; all engaged in the study of morbid processes, and the means employed for their relief; all ready to learn from anyone wiser or more experienced than ourselves; all conscious of the limitations of our knowledge, and the vast field of research still ungarnered, and already white unto the harvest. The physician or surgeon ceases to be a medical student only when his pulse ceases to play, and he rests for ever from his labours.

Education, in the genuine and higher signification of the term, consists not so much in the acquisition of knowledge as in the development of faculty; not in the accumulation of facts, but rather in the recognition of principles. The medical student cannot too early recognise that the main end of his professional training is not to fill his memory with descriptions of disease and routine rules of treatment, but to fit him to observe for himself and to reason accurately upon the facts of observation. The descriptions and classifications adopted in class-books, often excellent in their way, are apt to mislead the beginner regarding the fixity of nature and the homogeneity of disease. Probably there never yet were two cases of disease precisely similar in all details, and the student will strive in vain to find in the widest fields of observation the stereotyped cases which a careless reading of his text-books might lead him to expect. Nature, though ever true to herself, varies within limits that are practically infinite. "All things are in flux," said the ancient poet, and nowhere is the dictum truer than in the realm of disease. Hence the fatuity of "cram" in medical education; hence the supreme necessity that the medical student should early accustom himself to allow for the uncertainty introduced by the variability of pathogenic influence and of individual idiosyncrasy. Many practitioners undoubtedly reason hastily from one case to another. A drug has benefited one patient, therefore it will benefit another; a remedy has been useful in one case of a certain malady, therefore it will be useful in another case of the same malady. Such reasoning is by no means rare, but it is the reasoning of a quack and an empiric, and not of a man of science.

Towards the formation of the habit of exact observation nothing can more certainly conduce than the resolute study of anatomy. This subject is undoubtedly distasteful to many minds, some of them of the higher order, but the student who neglects it is dogged by a remorseless Nemesis throughout his entire professional career. An exact knowledge of the structure of the body is not only indispensable for the physician, and *à fortiori* for the surgeon; but, as we have implied, the process by which alone that knowledge can be acquired is a wholesome and indispensable discipline. Let the student accustom himself to regard the human body as a wonderful and complicated piece of mechanism, of which he has to discover and remember all the props and stays, all the wires and tubes and springs. Regarded thus, anatomy can no longer repel as a mere collection of dry and disconnected facts. Rather will it become a study of absorbing interest, in which every step securely taken opens up the road of further advance.

Just as anatomy deserves to hold the first place in the earlier stages of the medical curriculum because of its educating influence, so in the concluding stages must priority of importance be accorded to clinical study. The student who is a zealous anatomist in the first two years of his course, and a zealous observer in the hospital wards during the remaining two, is on the high road to professional usefulness and possibly eminence. Hospital work is the real preparation for practice, and to it all other studies are subsidiary and preparatory. In the wards of a hospital the student not only learns to recognise the characteristic features of disease and the general outlines of treatment, but there also his mind, with regard to professional knowledge, receives its first and most indelible impressions. A vivid clinical lecture leaves its mark for aye; a chance word of a trusted teacher becomes an axiom for life; a case presenting striking features and conveying serious lessons remains a landmark and sign-post during all succeeding years. Hence hospital experience more than all else makes the student what he will be for life; hence the well-known fact that certain hospitals impress upon all their *alumni* a certain mental tone and colour which constitute their tradition; hence the paramount duty that hospital instruction should be genuine, thorough, honest, free from bigotry, prejudice, or partiality. If statesmen and soldiers make history, the hospital physician or surgeon does much to make human life, and it is fitting that he should recognise the full measure of his responsibility.

We would advise the young student to begin his hospital work with a determination to use his own senses and intellect for the discovery of knowledge. It is impossible to acquire any genuine acquaintance with disease through the medium of books alone. The student must handle diseased structures, watch morbid processes, call in the aid of sight, touch, hearing, and smell for the discovery of deranged function. Each sense must be on the alert to receive impressions, while the brain is constantly at work in their interpretation. Of course, undirected and undisciplined observation will accomplish little. The student, in proportion to his inexperience, will need the constant help and supervision of his teachers and a frequent reference to his text-books; but, we repeat, personal observation is the only secure foundation of a really permanent and fruitful knowledge of disease.

The student need not be surprised or disheartened if his first feeling on entering the wards of a large hospital is one of simple bewilderment. Many distinguished men have described the sensation of despair which palsied their minds on first attempting to find order in the apparently inextricable chaos of disease. But this is an evanescent sentiment. Each day's experience, if honestly acquired and diligently tabulated, tends to clearness of vision and fixity of idea, and becomes the starting-point for further progress. By degrees the chaotic mass of morbid material takes shape and colour, and the apparent "wilderness of single instances," begins to acknowledge the principle of order and the rule of law. At this point another and more subtle danger needs to be shunned—namely, the danger of rash and hasty generalisation. The student, in his early delight at discovering order in apparent disorder, is apt to reason too precipitately from individual phenomena to general laws. Because a certain consequent follows a certain antecedent in one, two, three, or a dozen instances, he is liable to conclude that the causal relation is invariable, and thus to fall into the error known to logicians as the "fallacy of simple enumeration." Thus, to take a familiar instance—Does arsenic cure chorea? The student sees the drug given in this disease perhaps a dozen times; and let us suppose that recovery in each case results. He is most apt to conclude that cause and effect are here self-evident, especially if so informed authoritatively by his teacher. He does not readily reflect that the patients might conceivably have recovered under a quite different line of treatment, or that while his twelve cases recovered a thirteenth case might die. Every case of apparent cause and effect is entitled to be kept in memory and accorded its due weight, but it requires a multitude of such cases even to raise a presumption of a general law.

We would counsel the young student to attend diligently to the physiognomy of disease. It is by so doing that the trained hospital nurse acquires most of her knowledge, which is often surprisingly accurate, while at other times it is hardly less remarkably faulty. The eye alone can often go far towards establishing an exact diagnosis. Apart from such obvious cases as skin diseases, jaundice, anæmia, &c., in which simple inspection enables us to form a fairly accurate opinion, there are multitudes of other cases in which the aspect of the patient conveys information of great value. The flushed face, anxious expression, and suppressed breathing of a patient in the first agony of acute pleurisy; the orthopnœa, dusky hue, and throbbing arteries of a patient with advanced heart disease; the malar flush, sunken cheeks, and glittering eye of the dying consumptive,—all these and innumerable other cases carry to the trained eye their own interpretation, written only too plainly upon them. The aspect of a patient is valuable not only for diagnosis, but also for prognosis. The subtle changes from day to day, making either for life or death, may be too fine for detection by stethoscope or thermometer, but be visible to the experienced eye. The approach of the end is not seldom heralded by changes which the physician could hardly describe, but which he sees and reads with ease and confidence.

We will not stay to dwell upon the other features of clinical study to which attention might be directed, such as the importance for the student of persevering through the necessary drudgery of case-taking, the necessity of acquiring readiness and facility with such instruments of precision as the ophthalmoscope and laryngoscope, the duty of studying human nature as well as disease, and of remembering that the physician and surgeon deal not with inanimate things, but with beings responsive to sympathy and often oppressed by many sorrows. One word only we will add on this subject. Let the student be on his guard against too readily adopting the prevalent scepticism regarding the effect of remedies and the value of medical treatment. No doubt, the efficacy of drugs is receiving a severe sifting. We no longer regard medicines as potent spells to conjure with, and the present danger is rather lest the really immense influence of drugs over healthy and morbid function should be ignored. The student should early realise that, when all is said, success in treatment is the only justification for the existence of an art of medicine. All our minute pathology and refined diagnosis are of small value, except in so far as they enable us to prolong life or palliate suffering. The young student who begins with undue scepticism in therapeutics (a scepticism which is the less justifiable because it consists at bottom in disbelief in the value of remedies which have not yet received a thorough and patient trial) will be apt to drift into carelessness in diagnosis, and when this point is reached the practitioner is in the melancholy plight of living by the promulgation of a creed in which he himself is a secret disbeliever. There is nothing to be more desired for the student of medicine than that he should carry away from his hospital training a just and well-balanced judgment regarding both the resources and the limitations of his art, neither on the one hand scoffing at the value of doctrines established by the patient labour of long generations of great men, nor, on the other hand, clinging to antiquated superstitions, and practising with the blind and unintelligent faith of the empiric and the quack.

We pass on to make a few observations on the medical career on which many of our readers have entered, and to which others are looking forward with hope and expectation. If we could credit the vaticinations of professional Cassandras, the medical profession has fallen upon evil days. Our correspondence columns are often occupied with complaints regarding overcrowding, excessive competition, low remuneration, abuse of charities, &c.; and we do not doubt that such complaints have a certain justification. The stress and strain of the nineteenth century cannot be expected to leave any professional sanctuary free from invasion; we are sharing in the altered conditions of modern life, and it is for us to consider whether changed circumstances do not call for changed methods. The remedy is beyond question in our own hands. The public take from us their cue in their estimation of professional services, and are amenable to influences which it is in our power to exert. Without professing to consider remedies in detail, we think it is clear wherein much of the mischief consists. We need among ourselves a higher estimate of the dignity of our profession, and of the value of the services which it is in our power to render; a more scrupulous honour in shunning every suspicion of sacrificing the interest of a brother practitioner to our own advantage; a self-respect that can endure

poverty if necessary, but which will not tolerate either puffery or chicanery; and, lastly, a just estimate of our own rights, and a firm insistence upon them at the hands of the public. There can be no doubt that we suffer much and undeservedly from the abuse of medical charity. No one can value more highly than we that priceless heirloom of our profession—the principle that the suffering poor can command our services even if they come empty-handed; but the public need to be reminded again and again that if a man or woman who can afford to pay accepts gratuitous medical advice, or abuses the beneficence of our charitable institutions, he or she is guilty both of a meanness and a dishonesty. We should be sorry to see the commercial spirit prevail extensively among the profession, and we prefer the old notion that a medical fee is an honorarium, and not a quittance; but we must take human nature as we find it, and recognise that men, as a rule, value a thing just in proportion to the cost or effort of obtaining it, and that if they can get medical advice for nothing they are most apt to rate its value accordingly. We think "club practice" is being grievously abused, and might well call for attention at the hands of the licensing bodies. Again and again cases have been recorded in our columns of medical men giving their services in this line of practice at an average rate of less than a shilling per visit, medicine included. Now, *pace* CARLYLE, the people of this country are not "mostly fools," and egregious fools they would be to expect really efficient and honest medical service at this miserable rate. Let the public understand that if they want skilled attendance, and the bringing to bear for their relief the results of elaborate training and long experience, they must pay for them. They are wise enough to realise, if the matter be properly explained, that they cannot expect the benefits of a learned profession at a rate less than that paid to the carpenter for putting a broken chair to rights or to the plumber for inspecting the drains.

It is well, however, to remember that, on the whole, few careers hold out a more assured prospect of competence to character, industry, and perseverance than does that of a medical man. If the great prizes of the profession are few, the blanks are also few. The medical man who combines fair professional accomplishments with moderate talent and sound moral instincts rarely fails of attaining a reasonable competence, and a social position which, with certain inevitable drawbacks, has some very real compensations. It is no trifling inconvenience to have no certain leisure, to be able to take a holiday only at the cost of possible annoyance and certain financial loss, to have over-pressure of work at one season and under-pressure at another, to be always "on duty," and never able wholly to forget the physician in the man. On the other hand, it is no small compensation to feel that the daily work is not a mere bread-winning, but a labour of charity and usefulness—an image, however faint, of the deeds of the Divine Healer during

> "those sinless years
> That breathed beneath the Syrian blue."

It is quite true that any man, whatever his avocation, who discharges his daily duty with industry and uprightness, is in some sense a benefactor of his race, but of few men is this so undeniable as of the medical practitioner. It is, indeed, happily impossible for him ever to become wholly selfish, inasmuch as the vigorous exercise of his talents, which builds up his own fortune, also subserves the interests of his patients. He has the double incitement to strive after professional excellence—viz., his own advantage and the well-being of those who commit their lives into his keeping. It is the happy characteristic of the medical profession that these two objects—one selfish, the other unselfish—are not only not opposed, but are indissolubly linked together.

Medical life is, or is capable of being, an admirable school for the formation of character. Few, if any, careers so appeal to the entire man, to head and heart, to sense, intellect, and feeling. Men of action can find room for the play of faculty in the operations of surgery or the experiments of therapeutics and pharmacology; men of reflection can find illimitable material for thought in the ever-varying phenomena of disease and the wonderful aberrations of the disordered machinery of the human organism.

We think few men who have deliberately chosen the medical career and successfully surmounted the initial difficulties which beset all professions ever regret their choice. Here and there we meet a man soured by disappointment, broken down by the pressure of "club" or "Poor-law" practice, or dissatisfied with the limitations of a career which fortune has placed in some remote and solitary spot. But such cases are relatively rare, and the great body of the profession undoubtedly consists of fairly prosperous men, who have a cheery and sympathetic word for every patient, and whose hard work has not taken the flavour and charm out of their lives. On the other hand, the hard logic of statistics shows that medical life has more than an average share of hardship, and some dangers peculiar to itself. The mortality rates of the three learned professions—Divinity, Law, and Medicine—are respectively 15, 20, and 25 per 1000; and if we take the period of active professional life, between the ages of twenty-five and sixty-five, we find that the death-rate among doctors is half as much again as among lawyers, and actually twice as great as among clergymen. These facts can bear only one interpretation. Medical men have many peculiar privileges; they are the recipients of great honour and of still greater confidence, and they hold in their hands many of the cords by which our social life is bound; but their life-work is often arduous, their life-course often short, and many fall from the ranks when the trumpet is only sounding for the battle and ere the conflict is well begun. It is comforting to reflect that many fall not the less truly martyrs in the cause of humanity, although their deeds are unsung and their heroism enshrined in the breast of perhaps one individual or in the affections of only a single household. The physician who sucks a tracheal tube to give an easy breath to the miserable victim of diphtheria, with the knowledge that the act too probably seals his own doom, is but the most distinguished illustration of a heroism which is part of the inheritance of the medical profession, and which is in daily, and often silent and unobtrusive, exercise in every part of the civilised world. Medical men "count not their life dear unto them," so that human suffering be mitigated and the dictates of honour and duty obeyed. This is their solemn obligation; it is also their privilege, for self-sacrifice is the law of the

moral universe, and its exercise is the surest path to personal happiness.

Let the student, then, on the threshold of his career realise that he is becoming the heir of noble traditions and the guardian of some of the most sacred rights of humanity Let him reflect that he is taking the first steps on a path which may become as the shining light. Let him clearly understand that on his zeal and diligence in the pursuit of knowledge turn not only his own honour and interest, but in all probability the lives and happiness of many of his fellow-men. The profession of medicine, embraced in this spirit and pursued with such sentiments, will be fruitful in usefulness and honour, and its professors at the conclusion of their labours will most assuredly be ranked among the number of the "righteous" who "shall be held in everlasting remembrance."

THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

ONE noticeable fact in the history of the year that may prove of interest to students of medicine is the appointment of a committee of the Medical Council, on the motion of Dr. GLOVER, to consider the best means of increasing the practical element in medical education. This element is, undoubtedly, a most important one in medical education. It is admitted on all hands that medical education is better now than it has ever been. The public demand is higher, the efficiency of schools is greater, and their rivalry is keener. The basis of education has been raised, and the whole superstructure with it, including all its special and professional branches. All the strictly scientific parts of medical education are now taught in many schools as they have never been taught before. In some schools a large proportion of the teachers practically devote their lifetime to their work. But in spite of all this—or, perhaps, partly because of it—it has been complained that there has been a falling off in the practical parts of medical education, and that the newly-fledged diplomate, or even graduate—though more transcendentally learned in minute anatomy, chemistry, physiology, and pathology than his predecessors,—is less apt at recognising and treating common diseases, upon which so much of his comfort and reputation in after life depend. Some physicians and teachers of great authority admit and approve this. They say that it is inevitable, and that a student cannot become a practitioner till he has practised. This is of course a truism, but it is not a sufficient answer to the complaint. As medical science has improved, so has medical art. It is more neat, more direct, more precise, altogether more apt than it used to be; and medical students should be better trained in this latter, as they are in the former respect. The power of early recognising scabies or scarlet fever, or a wrong presentation in midwifery, or a fracture in surgery, or a dangerous infantile diarrhœa, can be taught as well before the charmed diploma is given as after. So can the professional conduct proper to such discoveries. It is certainly possible to go through all the long and exacting existing curriculum of the Schools and learn nothing of these things. Some of the Schools have not the means of teaching them. With large museums and learned professors, they have not cases of disease and of midwifery such as constitute the bulk of medical practice.

It remains to be seen whether the Medical Council of Education can suggest or apply a remedy for this defect. The committee appointed has already presented a temporary report recommending a limited pupilage, the alliance with every hospital of dispensaries and midwifery departments, the requirement of a larger midwifery experience in students, and more attention on the part of the examining authorities in the final examinations to common diseases. But this report, by a somewhat circumlocutory process, has been referred to another committee, and the result is still uncertain.

Meantime we advise students, for their own sake, to cultivate the practical element in their own education; to learn for themselves early the interest of common cases, common remedies, and common causes of disease; to aim at readiness in detecting what is wrong, and in seeing the nature of the correctives that can be applied. Our recommendation is not in favour of dogmatism and quackery and a specific for every symptom, but in favour of the cultivation of a medical aptitude for detecting and removing the run of diseases for which people consult medical practitioners. No worthy student should wait for the action of medical authorities in demanding proof that he knows the profession on which his living and the life of his patients are to depend.

STUDENTS PAST AND PRESENT.

THE student of medicine has been, and still is perhaps, regarded by some as a person in whom the faults of humanity meet and multiply with peculiar facility. In addition to our common inheritance of moral frailty, his age and associations appear in the eyes of such to have impressed him with a large additional proneness to error which is all his own. They would dread his presence under the same roof, would treat him with particular caution as an acquaintance, and would be prepared to find him the active source of almost any mischief or misdeed. For them perhaps it is not unnatural to view him in this light. Some natures readily exaggerate every circumstance, good and evil alike. A greater number are too ready to magnify evil while they persistently minimise good, and this not so much by intention as by a physical law which has allotted too grave a shade for their mental atmosphere. The alarmists, to whom the fair fame of our profession while yet in its budding spring presents a picture so unpromising, belong to this latter class. They are too apt to view with disfavour even the natural and blameless exuberance of youthful energy. They forget that idleness and folly are not the only companions of young manhood, and that though these qualities may distinguish a minority of youths engaged in every calling, there is, happily for mankind, in medicine as in other spheres of labour, a majority which is endowed with some sense of responsibility and a resolution to do well. They forget, moreover, that a large part of the praise or blame for what a young man is must be borne by the age he lives in, and that as times and customs alter so does he. Whether the change be for the better or for the worse, this will appear no less in his character and conduct than in the lives of other men. Be his individuality what it may, he must in some degree be moulded by his time.

The fifty years of our QUEEN'S reign have been fruitful in

advantage to all callings and all conditions of men. They have witnessed the action of forces whose operation upon the mind and work of the medical profession have been of most happy kind—forces which have not failed to affect favourably the quality of our professional recruits. More has doubtless to be done, and it would be idle to argue that further advances do not lie before them and us. We are well aware that the medical student is no more perfect than other young men. This much, however, we may truly say of him, that he represents in some respects a marked improvement on the type of his predecessor of half a century ago. Now, we are not about to drag up old memories for the purpose of abusing them. The widely admitted skill and character of many older practitioners who still survive amongst us are not the outcome of a wild and idle youth. Good work and an honest conscience have been held in honour by many in schools of medicine since time was young. Nevertheless, there is, we assert, a difference between the student past and present, and this difference is on the whole in favour of the latter. The object of study is now more clearly kept in view than it was then; study itself is more in vogue; recreation, still in justly high esteem—nay, in freer exercise,—bears rather more the impress of manhood, less of boyhood than before; and life throughout has more the stamp of reality. Racket and dissipation certainly are not, and have not been, in recent times at least, the rule in medical student life; but it is equally true that they were once less exceptional than they are now. What cause has wrought this favourable change? It is not that sombre gravity has overweighted the buoyancy of youth, but that young men and all men find it profitable alike in personal satisfaction and in material advantage to be sincere in all things, active in timely amusement, and vigorous in timely work. Naturally and truly we may assign much of this improvement to the tendencies of the period in which we live. Overwork there is in plenty, and we do not praise it for that, but regulated effort there is also within even this excess, sense of duty, belief and hope in it, and in life as duty as much as in any former era—nay more. In this era, for which, amid all falsity, real or apparent, we claim the merit of comparative sincerity, we can see in actual life a frequent answer other than the cynic's to the cynic's question—Is life worth living? In the history of recent invention and discovery, in the great advances made by public opinion in matters of moral, intellectual, social, and physical well-being, there is not wanting something which replies for men in common: that life, if it be purposely lived—not dreamt or idled through,—is in their view worth living. This character of the age, this hopeful earnestness, has impressed itself in no undecided manner upon the mind and conduct of medical students.

Another factor which has assisted and still powerfully assists this class is the actual development which has taken place in our knowledge of medicine itself, with the practical results involved in that extension. In order to gauge the real meaning of this advance, it is not necessary to enumerate here the many successful researches which have added skill once believed impossible to the healing art To every person possessed of ordinary intelligence and information it will be an easy matter to form a fair idea of that volume of scientific truth which, within a generation or two, has been collected as a common fund of intellectual capital for the use of all practitioners. Then, again, out of that increase of knowledge, how many mechanical facilities have arisen like a second growth to confer upon us advantages of the greatest value in diagnosis and treatment. More is almost daily known and done in medicine and surgery, and, as a natural consequence, the interest which belongs to the work increases in proportion. Not only does it command a wider and a deeper appreciation than at any former period at the hands of the general public, but it has proved repeatedly and fully its power of drawing out the enthusiasm and the energy of those who enter its ranks. Nor does this devotion imply merely a passing and ineffective exuberance of feeling. The sense of personal responsibility supplies an ever-present check upon any such excess; and while we naturally expect to find this the ruling principle in the mind of the practioner, we cannot but notice that it guides in an important degree the course of student life also. It is therefore not remarkable that, after passing in review these various considerations, we find in them so many reasons for the greater steadiness of endeavour which distinguishes the medical student of to-day from some of those who went before him. We cannot but think, too, that in fixing the limit of age at which a diploma can be obtained at a later period than formerly, the heads of the faculty have rendered useful service to students as well as to the non-medical part of the population. They have provided, as far as they can, that manhood, if not already reached, shall be near enough to guarantee a due regard for the exercise of energies which are not conducive merely to amusement. They have thus allowed the student time to form a fair estimate of what is implied in professional duty, and have enabled him to bring to bear on extended studies a more mature mind than was at one time thought to be necessary. It cannot be said, however, that this or any other existing arrangement has even come near to settling the question between work and play. That question is one affecting not youth alone, but every age, class, and occupation. However well we may try to advise with regard to it, its decision remains a matter of individual judgment, and compromise is the basis of such decision in every case. Recreation is as indispensable to a healthy life as work is to success in any undertaking. Even in its physical form it refreshes mind as well as body, and if rightly used will aid the student in his more laborious mental efforts without inflicting upon him any real disadvantage, for time thus occupied is repaid in working power. So it is with occupations of a recreative kind that are not physical. Change of mental as well as of muscular action is rest-giving and helpful. Who does not know the power of a fresh interest introduced amid fatigue and worry? How it changes nature in a man and sets the world about him and his part in its affairs in a totally different and more hopeful light from that of his former blurred and dim perceptions. It is no new saying that change is recreation, and it is true wisdom in students and in all men to see that in their most strenuous undertakings mind and body are not deprived of those refreshing interruptions of effort which are due to them. At the same time, we may be allowed to remind our readers that the real business of student life, the course of study, must always occupy the chief share of their attention. If they would assure a successful future, they must assign to

amusement, however salutary, a distinctly secondary position. This, it seems to us, is for medical students no hardship. Their mental occupation for the time being abounds in interest, and, inasmuch as it is largely practical, implies a fair degree of wholesome exercise. Their lot, therefore, even in its more laborious phase, is by no means unattractive, and may well absorb their best energies. Another subject directly connected with the employment of leisure is the choice of friends. The importance of making a right selection it is hardly possible to over-estimate. Temptations cluster around the path of all young men; and certainly the journey which the student of medicine has to travel is not beyond their influence. In view of this fact, it is not difficult to understand how the quality of a friendship has often a determining force towards good or evil, and we would strongly advise every student who does not intend his college life to be a failure not only to work regularly himself, but to choose his associates from the number of those who are good workers. In the sowing time of manhood some have thought it well to sow wild oats among their wheat. They have thought that the bitterness of the after-taste was compensated by the novelty of that light diversion while it lasted. But time is the truest teacher in all such matters, and the verdict of time is against that folly which winks at evil till it seems to be good, and kicks at restraints which impose no stricter bondage than that which the teaching of experience must otherwise establish. Strong fibre of mind or body is not bred of disease, and we repeat that what is most honourable and most useful in our professional character and practice is not, and never can be, the outcome of a profligate or idle studentship.

THE CHOICE OF A TEXT-BOOK.

THE question which the student is always asking, and naturally, is what book will best serve his purpose in preparing for certain examinations. The answer to this question is one which becomes every year more difficult. The number of medical text-books of a high class is now very great; therefore to select a few from amongst them may seem invidious. At the same time a list, which by no means pretends to be exhaustive, can be drawn up that may prove of value as a guide to the student in his choice. As representing all the various examining bodies, we may take for this purpose the Examining Board for England (Royal College of Physicians and Royal College of Surgeons) and the University of London.

THE EXAMINING BOARD FOR ENGLAND.

For the *First* Examination of this Board the student will be required to have gained a fair knowledge of Elementary Anatomy and Physiology, of Chemistry, Materia Medica, and Pharmacy; and if he be diligent he should be able to pass both parts of the examination by the close of his first year. In *Anatomy*, he may have recourse to GRAY'S Text-book, and to the works on *Osteology* by WARD, HOLDEN, and NORTON. In *Physiology*, the Elementary Text-book of HUXLEY might well be mastered first. In *Chemistry*, ROSCOE'S Elementary book and ATTFIELD'S work. In *Chemical Physics*, FOWNES' Inorganic Chemistry edited by WATTS, or BALFOUR STEWART'S Elementary Physics. In *Materia Medica*, the works of MITCHELL BRUCE, WHITLA, ROBERTS, GARROD, and BRUNTON'S or OWEN'S Elements.

For the *Second* Examination (corresponding to the Primary Membership at the College of Surgeons), the subject of *Anatomy* may be well studied in GRAY'S Anatomy, ELLIS'S Demonstrations, or HEATH'S Practical Anatomy. The anatomical plates of ELLIS and those of GODLEE are very useful in supplementing practical work, or the handier volume of MASSE. In *Physiology*, the books most to be recommended are KIRKE'S Handbook, G. YEO'S Text-book, and H. POWER'S Elements; and *Histology*, apart from the sections devoted to it in the works of GRAY and KIRKES, may be read in KLEIN'S Elements.

For the *Third* or Final Examination, in the subjects of *Surgery* and *Surgical Anatomy*, there are the Text-books of BRYANT, HOLMES, GANT, and ERICHSEN'S work, ably edited by MARCUS BECK, the System of Surgery edited by TREVES, the Practical Handbooks of BERKELEY HILL, CHRISTOPHER HEATH, PEARCE GOULD, and TREVES'S Applied Surgical Anatomy. For *Surgical Pathology* PEPPER or BILLROTH may be recommended. In *Diseases of the Eye*, LAWSON or NETTLESHIP. In *Medicine*, the Text-books of ROBERTS and BRISTOWE, preceded by the smaller works of CARTER or CHARTERIS. *Clinical Medicine*: FENWICK, FINLAYSON, or GRAHAM BROWN. *Pathology*: GREEN, COATS, and ZIEGLER (MACALISTER'S translation), and WOODHEAD'S or STEVEN'S practical work. *Therapeutics*: BARTHOLOW, RINGER, NAPHEYS, and FARQUHARSON. *Medical Jurisprudence*: the Text-books of GUY and TAYLOR. *Public Health*: WILSON. *Midwifery*: PLAYFAIR or GALABIN.

COLLEGE OF SURGEONS (FELLOWSHIP).

In addition to the anatomical and physiological works above mentioned, there may be read for the Primary F.R.C.S. (especially its histological and embryological sections)—QUAIN'S Anatomy, FORSTER'S Text-book of Physiology, LANDOIS' work edited by STIRLING, and GEGENBAUR'S Comparative Anatomy. Professor FLOWER'S Osteology of the Mammalia might also be read. For the Pass Examination, ERICHSEN'S work may be supplemented by chapters in the System of Surgery edited by HOLMES and HULKE. In *Operative and Practical Surgery*, there are works by STIMSON, FERGUSSON, and S. SMITH and HEATH'S ATLAS. PAGET'S or BILLROTH'S Surgical Pathology and ZIEGLER'S Pathology may be profitably read in connexion with works mentioned under the Conjoint Examination.

UNIVERSITY OF LONDON EXAMINATIONS.

For the Intermediate M.B. Examination of the University of London, the subject of *Organic Chemistry* may be studied in the Text-books of WILLIAMSON and of FOWNES. *Materia Medica*, besides the books above mentioned, is more fully treated in the works of BRUNTON, PHILLIPS, BARTHOLOW, and H. G. WOOD. *Physiology* as for the Primary F.R.C.S., with perhaps the addition of such books as that of POWER and HARRIS for practical work and of SCHAEFER for practical histology. The anatomical text-books are those recommended above. For the M.B. Examination, the subject of *Medicine* may profitably be further studied in NIEMEYER'S Text-book, in the exhaustive and scientific treatise of the late Dr. HILTON FAGGE, in that of AUSTIN FLINT, in the admirable work of STRUMPELL, lately translated, in REYNOLDS'S System of Medicine, and in TROUSSEAU'S Lectures. The large System of Medicine by American authors contains articles which

may often be usefully consulted by those who are desirous of obtaining full and accurate information. Special monographs (see M.D. Exam.) may also be consulted. *Pathology*, which should be worked at practically, may be studied in GREEN'S, COATS', or ZIEGLER'S Text-books, and also in the works of WILKS and MOXON, and in those of CORNIL and RANVIER; *Midwifery*, in the writings of PLAYFAIR, GALABIN, LEISHMAN, LUSK, and BARNES; *Gynæcology*, in those of GALABIN, LOMBE ATTHILL, EDIS, M. JONES, and BARNES; *Dermatology*, in the Text-books of TILBURY FOX, LIVEING, DUHRING, and M. MORRIS; *Medical Electricity*, in DE WATTEVILLE or POORE; *Medical Ophthalmoscopy*, in GOWERS' Handbook. For the M.D. Examination the candidate will do well to extend his reading to the better-known monographs, such as MURCHISON on Continued Fevers and on Diseases of the Liver; GOWERS, ROSS, CHARCOT, and WILKS on Diseases of the Nervous System; BALFOUR, BYROM BRAMWELL, and WALSHE on Diseases of the Heart; POWELL and WALSHE on Diseases of the Lungs; RALFE, W. ROBERTS, and DICKINSON on Diseases of the Kidney; E. SMITH, GOODHART, and A. MONEY on Diseases of Children.

In the foregoing lists we have mostly indicated more than one work upon a subject; for it is, of course, impossible to make a single selection from among so large a number of excellent works. A certain amount of choice must be left to the student himself, who will do well to be guided in this respect by the opinion of his teacher in the particular subject. Since it is impossible as well as undesirable for him to be too discursive in his reading during his student days, he may well resolve to devote such leisure as may happen to him in the future to making the acquaintance of works which will afford not only instruction but pleasure in the perusal.

CONDITIONS UNDER WHICH MEDICAL MEN WITH BRITISH QUALIFICATIONS ARE PERMITTED TO PRACTISE IN FOREIGN COUNTRIES.

MEDICAL men are so frequently anxious to settle abroad that a little general information concerning the conditions under which those who possess British qualifications can obtain permission to establish themselves in practice in various countries will probably be useful. As new laws are made these conditions are liable to change, and at the present time the regulations for the permission of foreigners to practise are in a transition state in several of the more important countries. There is probably no country in Europe where more liberty is enjoyed by foreign practitioners than in England; while other countries are gradually hedging themselves round, so that it is yearly becoming more and more difficult for a British practitioner to establish himself abroad unless he is prepared to undergo a tolerably complete examination in all the subjects of medical study in the language of the country in which he elects to live. A British diploma ought to hold good for all British possessions. In some colonies, however, local fees have to be paid, and in Malta we believe an examination is required, though by what right it is difficult to conjecture.

In France there are two grades of practitioners—Officers of Health and Doctors of Medicine, the examinations for the former diploma being fewer and more simple than for the latter. It has been usual for British medical men to content themselves with the lower diploma, which, it should be remarked, gives only a right to practise in some one department of France. Now, however, a cry has been raised that foreigners ought to be obliged to undergo the whole of the five examinations for the Doctorate—if not, indeed, to pursue their studies over again in a French medical school. Discretion is given to the Minister of Public Instruction to decide whether a foreign medical man may be admitted to the examinations for the Officership or the Doctorate, as well as the amount of exemption that shall be accorded to him. This decision is based upon the value of his own diplomas.

In Germany the ordinary State examination must be passed, and as a condition of admission to it the maturity or matriculation examination must either be passed or exemption obtained from it on the strength of some degree or other Arts examination previously passed at home. Some account of the German and other continental examinations was given in the Students' Number of THE LANCET for 1886.

In Austria, save, we believe, under very exceptional circumstances, when leave to practise may be obtained from the Government, the M.D. of an Austrian University is essential. We are not able to say whether the usual conditions as to residence may, as a rule, be dispensed with.

In Russia the State examination must, as a rule, be passed—in Russian at most of the Universities, in German at Dorpat, or in Swedish at Helsingfors. The Helsingfors diploma, however, only holds good for Finland. Where a foreign M.D. of high value is held, the Minister may permit the examination to be confined to what is called in Cambridge "keeping an act"—i.e., reading and defending a thesis. Even this is a much more serious affair than it is generally looked upon with us.

In Switzerland, the State examination is compulsory, and it is said to be by no means a matter of form by Englishmen who have passed or attempted it. It may be passed in French or German.

In Holland the State examination, which, we believe, corresponds somewhat with the German one, must be passed.

In Denmark the degree of Candidate in Medicine must be taken at Copenhagen. Foreign practitioners are admitted without residence.

In Sweden and Norway a State examination must be passed. These Scandinavian examinations have the reputation of being very severe.

In Portugal, including of course Madeira, the regular State examination must be passed in the Portuguese language.

In Italy permission may be obtained to practise amongst foreigners, but in order to practise amongst Italians the M.D. degree must be taken at one of the numerous Italian Universities.

With regard to Spain, application must be made through the diplomatic agent to the Government, the diplomas, duly certified, being forwarded. The application is usually granted, but applicants must be prepared for protracted delay; thus we have information that one gentleman who applied more than a year ago is still in a state of suspense.

In Belgium either a degree must be obtained from Ghent or Liège (those of Brussels and Louvain not being recognised), or an examination of a more or less formal character must be passed, after which a "permit" is given by the Minister. Changes in the direction of increased stringency may here be expected shortly.

In Servia an examination must be passed in Belgrade, except by graduates of Paris or Vienna.

In Roumania a *viva voce* examination is necessary.

In Turkey a short examination is obligatory, which is held at the Military Medical School; but although the regulations appear simple enough, we are informed that there are various difficulties to be overcome before obtaining the necessary licence.

In Greece an examination is necessary, which is held at Athens. It may be conducted in almost any language.

In Egypt and Morocco permission to practise may be obtained by the presentation of British diplomas.

In the United States the laws vary with the different States. In most of them British diplomas are recognised. In New York, however, a degree must be obtained from some local college.

Nearly all the South American States require examinations to be passed. Some of them are really difficult, and others are said to vary in stringency according to circumstances, the examiners, who are frequently Englishmen or Germans, not being particularly anxious to increase the already existing competition for practice amongst the more wealthy inhabitants.

THE ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

DURING the past year no change has been made in the qualifications required of candidates for commissions in the Medical Services, nor in the regulations affecting the pay and retirement of the officers. The Navy, the Army, and the Indian Service, differing from each other in some respects, but all possessing considerable advantages, seem to us to offer eligible openings for young medical men. Candidates for the Navy do not enjoy the benefit of the valuable course of instruction given to the other two branches at Netley, but they come upon full pay from the date of passing the competitive examination. Naval medical officers have great opportunities of seeing foreign countries and of studying natural history in its various branches, if so disposed, and have abundance of time for study. But, on the other hand, their opportunities of following out the practical work of their profession are limited, and they are liable to be placed on half-pay for indefinite periods when their ship is paid off. The latter drawback has been much reduced in recent years by the judicious action of the Director-General in employing them as much as possible in the hospitals on shore, but the possibility of this compulsory half-pay must not be overlooked. Candidates for the Army have the benefit of a most valuable course of instruction at Netley on special subjects, which cannot fail to prove useful to them in their future career and enable them, from the very commencement of their service, to carry out their duties with satisfaction to themselves and benefit to the soldier. Like the naval officers, though in a different manner, they have the opportunity of seeing foreign lands, but are not liable to be placed on half-pay on their return to England. They have also the right to retire from the service after completing a period of ten years, with a gratuity of £1250; after fifteen years, of £1800; and after eighteen years, of £2500. They labour under the disadvantage, however, of not being allowed to count the period of service at Netley towards retirement, their commissions being dated from the termination instead of the commencement of the course. They are by this also placed in the position of being always junior to the medical officers of the Navy and the Indian Service who have passed at the same competitive examination. Admission to the Indian Medical Service is governed by the same conditions as those which obtain with regard to the Army, and, as surgeons on probation, entrants have the advantage of the course of instruction at Netley. Their commissions as surgeons are antedated to the period of their joining at Netley, and the four months passed there are reckoned as service for pension; but their pay between the date of passing the final examination at Netley and arrival in India is only ten shillings per diem. The Indian medical officers labour under the disadvantage that all their service must be tropical, and they do not seem to have a right, as in the Army, to retire upon a gratuity after stated periods; but they become entitled to retired pay after seventeen instead of twenty years. The officers of the administrative grades are granted also a higher rate of retirement than those in the Army. We have endeavoured to point out the leading differences in the three branches with a view to enable students to weigh well their relative advantages and disadvantages; but we think all three offer considerable inducements in the way of pay and retirement to young men who may desire to enter at once upon a career in which, from its commencement, they can live on their pay, and have also the right either to retire when they think fit, or to continue to serve with the certainty of a fair pension for life.

METHODS OF OBTAINING A PRACTICE.

DURING his hospital days a student's whole energies are very properly thrown into the labour of preparing for his examinations and fulfilling the duties attached to the appointments he has been fortunate enough to obtain. It is, however, after his diplomas have been gained that the real battle of life begins. As long as he was at the hospital all was tolerably straightforward, and any lecturer or senior student could give him advice as to the course that should be pursued; but when the student has become a practitioner, or rather a medical man, no one can advise him how to obtain patients, and guarantee that the advice, however faithfully followed, will lead to success. A good student who has taken honours in his examinations and held important hospital appointments does not by any means always command the success in after life which he feels is his due. Indeed, he not unfrequently finds that some fellow-student who has taken no honours, and whose ability he perhaps looks upon with contempt, succeeds in obtaining a much better practice than himself. Not all the public care whether their medical man is an M.D. Lond. or an L.S.A., but they care very much for agreeable manners and tact. Leaving aside for the present the comparatively small number of young practitioners who wish to become consultants, as well as those who enter the public services, and addressing ourselves to those who look

forward to general practice as the means of earning their daily bread, a few hints as to the methods that exist of obtaining or attempting to obtain a practice may be of some utility.

It is often thought that an active young man has only to offer to do the bulk of the more arduous work of a practice for an elderly practitioner in order to be taken with open arms as a partner. There could not be a greater mistake. An elderly practitioner who wishes to part with a share of his practice—i.e., of course of his income—can always find a junior partner who will gladly pay him a substantial sum for it, and few men will give away that which has a marketable value. The purchase of a partnership, therefore, is one method of obtaining a practice, and a very suitable method for a young man who has had no experience as pupil or assistant in a general practice. The price that has to be paid varies generally from one and a half to two years' purchase of the share purchased. Thus, suppose the average income for the three preceding years is shown by the books to be £1200, a third share will have a value of from £600 to £800. If the practice does not decrease, he will immediately commence to *earn* £400 a year, but he will be some time before he *receives* anything to speak of, as accounts are not generally sent out more often than half-yearly, and may then remain unpaid for a considerable period. The junior partner will do well to reckon that during his first year he will not receive more than the half of what he has earned, or £200. During this time, however, he will have, in addition to the necessary outlay on furnishing, to pay rent, to keep himself and his family, if he be married, in suitable style, and to bear his share of the outgoings of the practice for drugs, bottles, and stationery, and if the vehicular expenses are borne by the firm, for the horse and man in addition. All this shows that even such a small partnership as this cannot be entered into without some capital over and above the amount paid as premium. Speaking generally, it may be said that a man should not expend more than 60 or 70 per cent. of his available capital in the purchase of his share. Such a share as we have supposed should not therefore be thought of by a man with less capital than £900 or £1000. Partnerships are becoming more and more rare, and there are, of course, objections to them. For instance, a partnership may be a great tie, for it may not be easy to liberate oneself from it, however much the locality may disagree with oneself or with one's family. Many ways of improving the practice or the manner in which it is conducted may occur to the junior partner, but he cannot well carry them out against the wishes of his senior. For these and other reasons it is more usual to buy an entire practice than a mere share in one. Would-be purchasers of practices should, however, be warned that all that can be bought is an introduction to patients and the goodwill of the retiring practitioner. A man may be ever so well qualified, and even experienced, and yet he may find that after his predecessor has left, a large proportion of the patients may fall away; that is to say, they may prefer the attendance of some other practitioner whom perhaps they may have known, socially or by repute, for many years. Some practices are much more easily transferred than others. Generally speaking, where the patients are of a high class and there is much opposition, transfer is difficult; whereas in a country village where there is no opponent for several miles, the transfer of a large proportion of the patients may be confidently looked for—i.e., if the parochial appointments can be secured; if not, the practice is probably not worth buying at any price. The premium paid for an entire practice is under ordinary circumstances about a year's purchase of the gross receipts, with a preliminary partnership of three, six, or twelve months on equal terms. What is called a death vacancy can frequently be obtained for half a year's purchase. It is well for the incomer to remember that he will have to keep up much the same establishment as his predecessor upon what is likely to prove only a half or two-thirds of his income, and that some time—in country places a year or eighteen months—will probably elapse before much begins to come in.

It is impossible within the limits of an article to go into a detailed account of the matters on which an intending purchaser should inform himself—such as the appointments, the number of midwifery cases (and whether these are increasing or diminishing), the conditions of opposition, increase or decrease of population, conditions of tenure of the house, the general character of the vendor and the length of time he has held the practice, the possibility of obtaining accommodation during the introduction, whether the connexion is sectarian, &c. He must beware of accepting too literally the statements and views of a would-be vendor, who sometimes romances cheerily and in much too sanguine a strain on what may be accomplished by a more active or a more highly qualified successor. Vacant practices are to be heard of through private friends or the members of the hospital staff, by taking locum tenencies, and through advertisements, wholesale druggists, or medical agents, but in all cases *caveat emptor*. A respectable independent medical agent will for a very few guineas make inquiries, examine the books, and give advice about the value of a practice both generally and to the individual client, and about the terms of the agreement. It is part of his profession to do this, and many a medical man would have saved himself from severe disappointment by taking timely professional advice. Of course the family solicitor should also be consulted, but he has not usually the special knowledge of an experienced medical agent regarding the details of medical practice.

The question is often asked by recently qualified men on the look out for practices, What income may I fairly hope to obtain by the investment of my capital? Of course, a great deal depends on the individual and much on the locality of the practice. Speaking in very general terms, it may be said that if 60 per cent. is sunk as premium, the remaining 40 per cent. being employed in furnishing and in maintaining oneself until the practice yields its full fruit, a gross yearly income of 40 or 50 per cent., or a net income of 30 or 40 per cent of the total original capital may fairly be looked for, whether the premium is invested in a partnership or in an entire practice; that is to say, a man with £1000 ought to make a net income of £300 or £400. Of course, many men succeed in doing much better than this, either by buying a practice on peculiarly favourable terms, or by equalling or exceeding the outgoer's income from the very first. Thus, we know of a case where a man "picked up" a practice just as it was about to be abandoned for £60, with a fortnight's

introduction, and succeeded in making £300 a year at once; he had, however, some private means. It should be remarked that a very small practice is frequently not worth buying at any price, the necessary expenses reducing its net value far below that of an assistancy. Indeed, where the available capital is, say, under £500, it is worth consideration whether it is not better to invest it at compound interest in some public security, and to take an assistancy till a favourable opportunity (which is nearly sure to come sooner or later) can be seized.

Medical men who have no capital or connexion are frequently attracted by assistantships, with a view to partnership. In nine cases out of ten the "view" turns out to be of a most telescopic character, unless there is a written and stamped agreement, and a readiness of capital when the share is actually transferred. Practices may sometimes be created by "setting up" in a new neighbourhood which is rapidly growing; or in a place where one already has some connexion either through relatives or friends, or through having been house-surgeon at the local hospital. Again, a practice may sometimes be made by obtaining some parochial or other appointment which is publicly advertised, and which of itself affords an introduction. Such appointments, however, are not very easy to obtain, and much time and money are sometimes wasted in applying for posts and interviewing guardians when the appointment is already as good as made, and the advertisement is a mere matter of form. It is rare that a practice can be made without the expenditure of some capital, for even if success ultimately attends the venture, the practitioner has to "sit behind his brass plate" to pay his rent and to maintain himself for some months, or even years, before sufficient practice is obtained to support him, so that, as Dr. THURSTAN recently remarked in our correspondence columns, it is financially much the same thing whether a practice is made or purchased. Complete failure, too, is probably more common in cases where men have established themselves in a fashionable locality in an expensive house, without adequate means, than in those where a practice of some kind has been bought. Here the purchaser seldom fails to secure some remnants of his predecessor's practice, which, though perhaps very much less than he had hoped for, are yet sufficient to enable him to exist; whereas, when there has been no introduction, some years may elapse before £100 is received.

A WORD TO STUDENTS OF PSYCHOLOGY.

IT is not to be expected that a knowledge of insanity, any more than of other branches of medicine, can be obtained by the light of nature. The public are occasionally under the delusion that anyone is able to recognise a lunatic at first sight. In many instances, no doubt, this supposition is correct, but in a very considerable number of cases the diagnosis is one of extreme difficulty. Practitioners, therefore, who have any dealings with lunatics should be able to prove that they are competent to undertake their management. During the last twelve months a step in the right direction has been taken by the Medico-Psychological Association, and we are glad to find that the recommendation contained in our Students' Number of last year, that those who intend to treat the insane should obtain the diploma offered by this body, has not been neglected. The fact that not less than twenty-four registered practitioners have availed themselves of the opportunities of being examined by distinguished psychologists, and of displaying their competency to treat mental disorders, is sufficient proof that the Association has supplied a want, felt not only by the profession, but also, we venture to think, by the public. We shall watch the progress of this movement with much interest, and we trust that all our recognised examining bodies may be induced to follow this good example, and to insist upon a knowledge not only of the book work, but also of the practical knowledge of mental disease, being exhibited by those who receive their qualifications. Latterly several cases have come under our notice in which great difficulty has been experienced in getting medical men to sign certificates for admissions to asylums. This under present circumstances is hardly to be wondered at. Should the proposed new Lunacy Bill ever be passed, we sincerely hope that the most stringent measures will be taken to protect those who are really acting conscientiously from the mental anxiety, loss of time, and loss of money to which some of our profession have recently been subjected.

SESSION 1887-88.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM.

Registration of Medical Students.—The following are the General Medical Council's Regulations in reference to the registration of students in Medicine:—

Every medical student shall be registered in the manner prescribed by the General Medical Council. No medical student shall be registered until he has passed a preliminary examination as required by the General Medical Council,[1] and has produced evidence that he has commenced medical study. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration. The registration of medical students shall be placed under the charge of the branch registrars. Each of the branch registrars shall keep a register of medical students according to a prescribed form, and shall enter therein the name, the preliminary examination and date thereof, the date of registration, and the place and date of commencement of medical study, as certified by a master or a teacher, or an official in a medical school or hospital. Every person desirous of being registered as a medical student shall apply to the branch registrar of the division of the United Kingdom in which he is residing; and shall produce or forward to the branch registrar a certificate of his having passed a preliminary examination as required by the General Medical Council, and *evidence that he has commenced medical study*. The branch registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration. Each of the branch registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of medical students. The several Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit special exceptions to the foregoing regulations as to registration,

[1] Exception may be made in the case of a student from any Indian, Colonial, or Foreign University or College, who shall have passed the matriculation or other equivalent examination of his University or College, provided such examination fairly represents a standard of general education equivalent to that required in this country.

for reasons which shall appear to them satisfactory. A copy of the Register of Medical Students, prepared by each of the branch registrars, shall be transmitted on or before December 31st, in each year, to the registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply copies of such authorised list to each of the bodies enumerated in Schedule A to the Medical Act (1858), and through the branch registrars to the several medical schools and hospitals. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit exceptions to this recommendation. The regulations for preliminary general education are as follows:—

No person shall be allowed to be registered as a medical student unless he shall have previously passed (at one or more examinations) a preliminary examination in the subjects of general education as specified in the following list:—1. English Language, including Grammar and composition. 2. Latin, including Grammar, Translation from specified authors, and Translation of easy passages not taken from such authors. 3. Elements of Mathematics, comprising (*a*) Arithmetic, including Vulgar and Decimal Fractions; (*b*) Algebra, including Simple Equations; (*c*) Geometry, including the first book of Euclid, with easy questions on the subject matter of the same. 4. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. 5. One of the following optional subjects:—(*a*) Greek, (*b*) French, (*c*) German, (*d*) Italian, (*e*) any other Modern Language, (*f*) Logic, (*g*) Botany, (*h*) Zoology, (*i*) Elementary Chemistry.[2]

W. J. C. Miller, B.A., Registrar of the General Council and of the Branch Council for England, 299, Oxford-street, London, W.—James Robertson, Registrar of the Branch Council for Scotland, 4, Lindsay-place, George IV. Bridge, Edinburgh.—R. L. Heard, M.D., Registrar of the Branch Council for Ireland, 35, Dawson-street, Dublin.

REGULATIONS OF THE MEDICAL EXAMINING BOARDS IN THE UNITED KINGDOM.

UNIVERSITY OF OXFORD.

There are two degrees in Medicine, B.M. and D.M., and two degrees in Surgery, B.Ch., and M.Ch., and a diploma in Public Health. The B.M. and B.Ch. degrees are granted to those members of the University who have passed the Second Examination. Graduates in Arts (B.A. or M.A.) are alone eligible for these two degrees. After the degree of B.A. is obtained, the degrees of B.M. and B.Ch. may be obtained by passing the following examinations:—1. Preliminary. 2. Professional. (*a*) First Examination: Subjects—Organic Chemistry, unless the candidate has obtained a first or second class in Chemistry in the Natural Science School; Human Physiology, unless he has obtained a first or second class in Animal Physiology in the Natural Science School; Human Anatomy. (*b*) Second Examination: Subjects—Medicine, Surgery, Midwifery, Pathology, Forensic Medicine with Hygiene, and Materia Medica with Pharmacy.

The degree of D.M. is granted to Bachelors of Medicine of the University—(1) who took the degree of B.M. previously to the end of Trinity Term, 1886, provided they have spent three years in the practice of Medicine after taking that degree and have composed a dissertation on some medical subject approved by the Regius Professor of Medicine, before whom it must be read in public; (2) who took the degree of B.M. subsequently to the end of Trinity Term, 1886, provided they have entered their thirty-ninth term and have composed on some medical subject a dissertation which is approved by the professors in the Faculty of Medicine and examiners for the degree of B.M. whose subject is dealt with. A book published within two years of the candidate's application for the degree may be substituted for a dissertation. The degree of M.Ch. is granted to Bachelors of Surgery of the University who have entered their twenty-seventh term, who are members of the surgical staff of a recognised hospital, or have acted as Dresser or House-Surgeon in such a hospital for six months, and who have passed an examination in Surgery, Surgical Anatomy, and Surgical Operations.

The diploma in Public Health is granted only to Bachelors of Medicine of the University who have passed an examination in Hygiene, Sanitary Law, Sanitary Engineering, and Vital Statistics.

The First Examination for the degrees of B.M. and B.Ch. and the Examination in Materia Medica and Pharmacy may be passed as soon as the Preliminary Examination in Medicine has been completed. Organic Chemistry may be taken on a separate occasion, but before Human Physiology and Anatomy. The two last-named subjects must be taken together. For exemptions, see *ante*.

The Second Examination may be taken after the completion of the first. Materia Medica and Pharmacy, if not already passed, may be offered on a separate occasion, but before the remaining subjects, which must be taken together.

The Professional Examinations in Medicine are held once a year in Trinity Term, the second before the first.

Instruction in the subject-matter of Responsions, Moderations, and the various literary schools is given by the tutors and lecturers of the Colleges and Halls. In Natural Science, the professors of the University and their assistants deliver regular courses of lectures and conduct classes for practical instruction in the laboratories of the Museum and Botanic Garden in each term. In addition, several Colleges possess tutors in Science, and in two or three instances laboratories as well. In Medicine, instruction in Organic Chemistry is given once a year. Physiology, Physiological Chemistry, and Histology are taught by the Waynflete Professor of Physiology and his assistants; Human Anatomy by the University lecturer in that subject, under whose control is placed the department for dissection. Provision for the teaching of Materia Medica is being made. Instruction and demonstrations in Physical Diagnosis and Regional Anatomy are given in each term at the Radcliffe Infirmary. Clinical lectures in Medicine and Surgery are also delivered by the two Lichfield lecturers of the University, a physician and a surgeon of the infirmary respectively; but as full provision does not exist for the teaching of the subjects for the Second Professional Examination (except Materia Medica), it is necessary for a student to obtain his knowledge elsewhere. The Radcliffe Library at the Museum contains a vast collection of scientific and medical literature, available for study and consultation by students.

Scholarships, &c.—Scholarships in some branch of Natural Science (Chemistry, Physics, Biology) of the average annual value of £80 per annum, tenable for four years and renewable under certain conditions for a fifth year, as well as Exhibitions of a less annual value, are awarded after competitive examination, every year by some, from time to time by other, Colleges. Notices of vacancy &c. are published in the *University Gazette*. In February there is competed for annually, by those who have obtained a first class in any school (Moderations or Final), or a Scholarship or Prize open to general competition in the University, one Radcliffe Travelling Fellowship. It is tenable for three years, and is of the annual value of £200. The examination is partly scientific, partly medical. The holder must travel abroad for the purpose of medical study, and take the degree of B.M. Oxon. A Rolleston Memorial Prize is awarded once in two years to members of the Universities of Oxford or Cambridge of not more than ten years' standing for an original research in some Biological subject, including Physiology or Pathology.

More detailed information may be obtained from the University Calendar; the Examination Statutes, 1887, which contains the official schedules of the several subjects of examination in both Arts and Medicine; from the Student's Handbook to the University; from the Regius Professor of Medicine; from the Professors in the several departments; and from the Sub-Librarian in the Radcliffe Library at the Museum.

[2] In the case of students in Universities with a prolonged curriculum, where the examination in Mechanics required for their degree is taken at a more advanced period of study than before commencing medical education, registration can be effected only on having passed the examination in Mechanics, but their registration may be then antedated to the period at which the Preliminary was passed.

UNIVERSITY OF CAMBRIDGE.

The student must enter at one of the Colleges, or as a non-collegiate student, and keep terms for three years by residence in the University. He must pass the Previous Examination in Classics and Mathematics, which may, and should if possible, be done immediately on coming into residence in October, or, which is best, obtain exemption through the Oxford and Cambridge Schools Examination Board or the Local Examinations, before commencing residence. He may then devote himself to medical study in the University, attending the hospital and the medical lectures, dissecting, &c. Or he may proceed to take a degree in Arts, either continuing mathematical and classical study and passing the ordinary examinations for B.A., or going out in one of the Honour Triposes. The Natural Sciences Tripos is the most appropriate, as the subjects are the same as those for the First and Second M.B. Examinations.

For the degree of *Bachelor of Medicine* five years of medical study are required, except in the case of medical students who have graduated with honours as Bachelors of Arts, four years only being then required, though it is rarely sufficient. This time may be spent in Cambridge or elsewhere. The first three or four years are usually spent in Cambridge, the student remaining in the University till he has passed (say) the examination for the Natural Sciences Tripos and the first and second examinations for M.B. Cambridge being now a complete School of Medicine, all the requisite lectures and hospital practice may be attended here, and many students remain to attend lectures and hospital practice until they have passed the first part of the third examination for M.B. The supply of subjects for Dissection and Practical Surgery is unusually abundant.

There are three examinations for M.B. The *first* in Chemistry and other branches of Physics, and in Elementary Biology. These may be taken together or separately. The *second* in Human Anatomy and Physiology, and in Pharmaceutical Chemistry. These may be taken together or separately. The *third* may be also taken in two parts—viz., (1) Principles of Surgery (with Operative and Clinical Surgery) and Midwifery and Diseases of Women, and (2) Pathology, Principles and Practice of Medicine, Elements of Hygiene, and Medical Jurisprudence. The examinations are partly in writing, partly oral, and partly practical, in the hospital, in the dissecting-room, and in the laboratories.

Previously to the first examination, Lectures must have been attended on Chemistry (with manipulations). Previously to the second examination, the student must have attended Lectures on Human Anatomy, Pharmacy and Pharmaceutical Chemistry, and Physiology, have dissected for six months, and attended Hospital Practice six months. Previously to the first part of the third examination, he must have attended Lectures on Pathology, the Principles of Surgery and Midwifery, the Surgical Practice of a Hospital with Clinical Lectures for a year, ten cases of Midwifery, and produce a certificate of proficiency in Vaccination. Previously to the second part of the third examination, he must have attended Lectures on the Principles and Practice of Physic, the Physiological Action and Therapeutic Uses of Drugs, and Medical Jurisprudence; also the Medical and Surgical Practice of a Hospital with Clinical Lectures for three years, and have been Clinical Clerk for six months; and have acted as House-Surgeon or Dresser for six months, and have gone through a course of instruction in Practical Surgery.

The degree of *Doctor in Medicine* may be taken three years after that of M.B. An Act has to be kept, with *viva-voce* examination; and an extempore essay has to be written on some subject relating to Physiology, Pathology, the Practice of Medicine, or State Medicine.

As Operative and Clinical Surgery now form parts of the third M.B. examination candidates who have passed that examination are admitted to the degree of Bachelor of Surgery (B.C.), without separate examination.

For the degree of *Master in Surgery* (*M.C.*) the candidate must have passed all the examinations for B.C. two years. He is required to pass an examination in Surgical Anatomy and Surgical Operations, Pathology, and the Principles and Practice of Surgery.

An abstract of the Regulations and Schedules of the range of the examinations in Chemistry, Physics, Biology, and Pharmacy may be obtained by sending a stamped directed envelope to the Assistant-Registrar, Cambridge. Full information is contained in the *Cambridge University Calendar*.

UNIVERSITY OF LONDON.

The *Matriculation Examinations* take place on the second Monday in January and the third Monday in June. Candidates must be above sixteen years of age. The fee for the examination is £2. Provincial examinations are appointed by the Senate from time to time at specified centres. Several scholarships, exhibitions, and prizes are associated with these examinations.

The *Preliminary Scientific (M.B.) Examination* takes place twice in each year, once for Pass and Honours, commencing on the third Monday in July, and once for Pass candidates only on the third Monday in January.[3] No candidate will be admitted to this examination until he shall have passed the Matriculation Examination, nor unless he have given notice of his intention to the registrar at least one calendar month before the commencement of the examination. Fee for this examination, £5.

Candidates are examined for a Pass or for Honours on Inorganic Chemistry and Experimental Physics; and for a Pass, on General Biology. Candidates for Honours, who have entered for the whole examination, may also be examined in Botany and Vegetable Physiology, and Zoology, unless they have previously obtained an exhibition in any one of the subjects of this examination at the Intermediate Examination in Science, in which case they shall not be admissible to the examination for Honours in that subject.

Bachelor of Medicine.—Every candidate for the degree of Bachelor of Medicine will be required—1. To have passed the Matriculation Examination in this University. 2. To have passed the Preliminary Scientific Examination. 3. To have been engaged in his professional studies during four years subsequently to passing the Preliminary Scientific Examination[4] at one or more of the medical institutions or schools recognised by this University, one year at least of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom. 4. To pass two examinations in Medicine.

Intermediate Examination.—The Intermediate Examination in Medicine takes place twice in each year, once for Pass and Honours, commencing on the second Monday in July, and once for Pass candidates only, commencing on the third Monday in January, the January examination being held for the first time in 1888. No candidate shall be admitted to this examination unless he have passed the Preliminary Scientific Examination at least two years previously, and have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having, subsequently to having passed the Matriculation Examination, been a student during two years at one or more of the medical institutions or schools recognised by this University, and of having attended a course of lectures on each of three of the subjects in the following list: Descriptive and Surgical Anatomy, Histology and Physiology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine. 3. Of having, subsequently to having passed the Preliminary Scientific Examination, dissected during two winter sessions. 4. Of having, subsequently to having passed the Preliminary Scientific Examination, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical chemistry, in applying tests for discovering the adulteration of articles of the materia medica and the presence and nature of poisons, and in the examination of mineral waters, animal secretions, urinary deposits, calculi, &c. 5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines. These certificates (as is the case also with all the certificates hereinafter mentioned) must be transmitted to the registrar at least fourteen days before the commencement of the examination. Fee for this examination, £5.

Candidates will be examined in the following subjects: Anatomy, Physiology, Histology, Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry.

[3] Candidates for the degree of M.B. are required by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies, and are recommended to devote a preliminary year to preparation for it, according to the following programme:—Winter Session: Experimental Physics, Chemistry (especially Inorganic), Zoology. Summer Session: Practical Chemistry (Inorganic), Botany.

[4] Candidates who passed the Matriculation Examination in January, 1885, or previously, will be allowed to date the commencement of their professional studies, as heretofore, from that examination.

Every candidate for the July examination, on sending in his name for the examination, must state whether he intends to compete for honours in any subject or subjects; and, if he does so intend, must specify the subject or subjects. No candidate will be allowed to take both the Pass and the Honours Papers in the same subject; but every candidate must take the Pass Papers in those subjects in which he does not offer himself for Honours. A candidate who enters for, but fails to obtain, Honours in any subject, may be recommended by the examiners for a Pass in that subject if they are satisfied that he has shown such a competent knowledge thereof as is required by the regulations for the Pass Examination.

M.B. Examination.[5]—The M.B. Examination takes place once in each year, and commences on the last Monday in October. Each candidate, two academical years after passing the First Examination, must produce certificates to the following effect:—1. Of having passed the Intermediate Examination. 2. Of having, subsequently to having passed the Intermediate Examination, attended a course of lectures on each of two of the subjects enumerated in Section 2 of the regulations for that examination, and for which the candidate had not on that occasion presented certificates. 3. Of having conducted at least twenty labours. Certificates on this subject will be received from any legally qualified practitioner in medicine. 4. Of having attended the Surgical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery. 5. Of having attended the Medical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Medicine. 6. Of having, after having attended Surgical and Medical Hospital Practice for at least twelve months subsequently to passing the Intermediate Examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union, during six months, such attendance not to be counted as part of either the Surgical or the Medical Hospital Practice prescribed in Clauses 4 and 5. 7. Of having acquired proficiency in Vaccination. Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council. The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. The fee for this examination is £5.

Candidates will be examined in the following subjects: General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Obstetric Medicine, Forensic Medicine. The examinations will include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry.

Any candidate who has passed the M.B. Examination may be examined at the Honours Examination next following the M.B. Examination at which he has passed for Honours in (1) Medicine, (2) Obstetric Medicine, and (3) Forensic Medicine. The examinations commence in the week following that in which the Pass Examination terminated. Except in the case of Forensic Medicine, they are conducted by means of printed papers, but the examiners will not be precluded from putting *vivâ-voce* questions upon the written answers of the candidates.

Bachelor of Surgery.—The examination for the degree of Bachelor of Surgery takes place once in each year, and commences on the Tuesday following the first Monday in December. Candidates must produce certificates to the following effect:—1. Of having passed the examination for the degree of Bachelor of Medicine in this University. 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. Fee for this examination, £5.

Any candidate who has passed the B.S. Examination may be examined at the Honours Examination next following the B.S. Examination at which he has passed for Honours in Surgery. The examination takes place on Tuesday in the week following the Pass Examination, and is conducted by means of printed papers.

Master in Surgery.—The examination for the degree of Master in Surgery takes place once in each year, and commences on the first Monday in December.

[5] Any candidate for the M.B. Examination who has passed the Intermediate Examination under the former regulations will be required to have also passed the examination in Physiology at some previous Intermediate Examination carried on under the present regulations, at which examination he shall not be allowed to compete for Honours.

Candidates must produce certificates to the following effect:—1. Of having taken the degree of Bachelor of Surgery in this University.[6] 2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University, (*a*) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; or (*b*) to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession; or (*c*) of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability.

Fee for this degree, £5. The examination is conducted by means of printed papers and *vivâ-voce* interrogation.

Candidates will be examined in Mental Physiology, and in Surgery.

Doctor of Medicine.—The examination for this degree takes place once in each year, and commences on the first Monday in December.

Candidates must produce certificates to the following effect:—1. Of having passed the examination for the degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University, (*a*) to Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University; or (*b*) to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession; or (*c*) of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine or two years of practice will be dispensed with in the case of those candidates who at the M.B. Examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability.

Fee for this degree, £5.[7] The examination is conducted by means of printed papers and *vivâ-voce* interrogation.

Candidates will be examined in Mental Physiology and in Medicine.

UNIVERSITY OF DURHAM.

Three Licences and four Degrees in Medicine are conferred—viz., Licences in Medicine, in Surgery, and in Sanitary Science; and the Degrees of Bachelor in Medicine, Bachelor in Surgery, Master in Surgery, and Doctor in Medicine.

For the degree of *Bachelor in Medicine* (*M.B.*) there are three professional examinations: the first being held in September (in 1887, commencing on the 19th) and April (in 1888, commencing on the 16th); the second in September (in 1887, commencing on the 26th) and April (in 1888, commencing on the 23rd; and the third in December (in 1887, commencing on the 5th) and in June (in 1888, commencing on the 11th).

The subjects for the first examination are—Elementary Anatomy and Elementary Physiology, Chemistry, with Physics, and Botany. Candidates must produce the following certificates:—(1) Of registration as a medical student. (2) Of attendance on the following courses of lectures: Anatomy, Physiology, Chemistry, with Physics, and Practical Anatomy (Dissections), each six months; Botany and Practical Chemistry, each three months.

The subjects for the second examination are Anatomy, Physiology, Materia Medica, with Pharmacy. For it the following certificates are necessary: Lectures, &c.—Anatomy, Physiology, Practical Anatomy (Dissections), second courses of six months each; Materia Medica, Practical Phy-

[6] Candidates who have obtained the degree of Bachelor of Medicine previously to 1886 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates the attendance on surgical practice required by Regulation 2 may commence from the date of the M.B. degree.

[7] This fee will continue to be £10 to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of £5 at the Preliminary Scientific Examination.

siology, and Practical Pharmacy, courses of three months each. The candidate must also produce a certificate of his having passed the first examination for the M.B., or the first examination of the Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England, together with the extra examinations in Chemistry and Botany of the University of Durham.

The subjects for the third examination are Medicine, Surgery, Pathology, Therapeutics, Midwifery and Diseases of Women and Children, Medical Jurisprudence, and Public Health. For it candidates must produce the following certificates—viz.: 1. Of being not less than twenty-one years of age. 2. Of good moral character. 3. Of having passed one of the following examinations in Arts: (*a*) the Examination for Graduation in Arts at one of the following universities—Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), Queen's College (Kingston), Victoria (Manchester), and Royal (Ireland); or (*b*) the Preliminary or Extra-professional Examination for Graduation in Medicine at one of the following Universities—Cambridge, London, Edinburgh, Glasgow, St. Andrews, Aberdeen, Queen's (Ireland), Victoria (Manchester), and Royal (Ireland), provided that the candidate in obtaining the certificate shall have satisfied the examiners in Greek. Candidates holding a certificate which does not include Greek may offer themselves for examination in that subject alone at the examination for the certificate for Proficiency in General Education at Durham, or at the Preliminary Examination in Arts for the degrees in Medicine above mentioned. This regulation will apply to all candidates entering for the degrees in Medicine on or after October 1st, 1888; or (*c*) the Preliminary Examination in Arts qualifying for the Membership of the Royal College of Physicians of London or for the Fellowship of the Royal College of Surgeons of England; or (*d*) the Preliminary Examination in Arts for the degrees in Medicine of the University of Durham (in 1888, commencing on March 20th and Sept. 18th). 4. Of attendance on the following course of lectures—viz.: Medicine and Surgery, each two courses of six months; Public Health, one course; Forensic Medicine, Midwifery, and Diseases of Women and Children, and Pathology, each one course of three months; Clinical Medical and Clinical Surgical Lectures, each two winters and two summers; Medical Hospital Practice and Surgical Hospital Practice and Post-mortem Demonstrations, each three winters and two summers; Medical Clinical Clerking and Surgical Dressing, each six months; Clinical Obstetrics, three months; attendance on not less than twenty-one cases of Midwifery, and instruction in Vaccination.

N.B.—It is required that one of the four years of professional education shall be spent in attendance at the College of Medicine, Newcastle-on-Tyne. Candidates for the First Examination who have passed the First Examination of the Conjoint Board in England, and candidates who hold a qualification from a recognised Licensing Body in the United Kingdom, will be exempt from the First Examination of the University, except in the subjects of Chemistry, with Physics and Botany. Candidates who have passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board.

For the degree of *Bachelor in Surgery* (*B.S*) every candidate must have passed the examination for the degree of Bachelor in Medicine of the University of Durham, and must have attended one course of lectures on Operative Surgery, and one course on Regional Anatomy. Candidates will be required to perform operations on the dead body, and to give proof of practical knowledge of the use of surgical instruments and appliances.

For the degree of *Master in Surgery* (*M.S.*) candidates must not be less than twenty-four years of age, must have obtained the degree of Bachelor in Surgery of the University of Durham, and must have been engaged for at least two years subsequently to the date of acquirement of the degree of Bachelor in Surgery in attendance on the practice of a recognised hospital, or in the naval or military services, or in medical or surgical practice. The subjects of examination shall be: Principles and Practice of Surgery, Surgical Pathology, Surgical Anatomy, Surgical Operations, and Clinical Surgery.

For the degree of *Doctor of Medicine* (*M.D.*) candidates must not be less than twenty-four years of age, must have obtained the degree of M.B. at least two years previously, and in the interim have been engaged in medical and surgical practice. Each candidate will be required to write an essay on some medical subject selected by himself and approved by the Professor of Medicine, and to pass an examination thereon.

Candidates for any of the above degrees must give at least twenty-eight days' notice to the registrar of the College.

VICTORIA UNIVERSITY, MANCHESTER.

Colleges of the University: Owens College, Manchester, and University College, Liverpool.

Three degrees in Medicine and Surgery are conferred by the Victoria University—viz., Bachelor of Medicine (M.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.).

All candidates for degrees in Medicine and Surgery are required—(1) To have matriculated in the University; and (2) to pass (either *before* or *after* matriculation) an examination called the Entrance Examination in Arts, or to have passed such other examination as may be recognised by the University for this purpose.[a]

Degree of Bachelor of Medicine.—Before admission to the degree of M.B. candidates are required to present certificates that they will have attained the age of twenty-one years on the day of graduation, and that they have pursued the courses of study required by the University Regulations during a period of not less than four years subsequently to the date of their registration by the General Medical Council, two of such years having been passed in a College of the University, and one year at least having been passed in a College of the University subsequently to the date of passing the Preliminary Examination in Science. All candidates for the degree of Bachelor of Medicine are required, after matriculating, to satisfy the examiners in the several subjects of the following examinations: the Preliminary Examination in Science, the Intermediate Examination for the degree of M.B., and the Final Examination for the degree of M.B.

The Preliminary Examination in Science.—The subjects of examination are as follows:—1. Chemistry. 2. Elementary Biology. 3. Physics. Candidates for the Preliminary Examination in Science must have attended during at least one year courses, both of lectures and of laboratory work, in each of the above-named subjects.

The Intermediate M.B. Examination.—The subjects of examination are as follows:—1. Anatomy. 2. Physiology (including Physiological Chemistry and Histology). 3. Materia Medica and Pharmacy. Candidates for the Intermediate M.B. Examination are required to have passed the Preliminary Examination in Science, and to have attended courses of instruction in Anatomy for one winter session, in Physiology for two winter sessions (but one session will be accepted provided that a full course has been attended by the candidate), and in Materia Medica and Pharmacy for one summer session. The certificates must show (1) that the human body has been dissected twice at least; (2) that laboratory instruction has been received in Physiology; (3) that practical instruction has been received in Materia Medica and Pharmacy.

The Final M.B. Examination.—The examination is divided into two parts, called the First Part and the Second Part respectively, which may be passed separately or on the same occasion, but the First Part cannot be taken before the end of the third year, and the Second Part cannot be taken before the end of the fourth year, of medical study in accordance with the University Regulations. The subjects of examination are as follows:—Part I.: 1. Systematic Surgery. 2. Pharmacology and Therapeutics. 3. General Pathology. Part II.: 1. Systematic and Clinical Medicine, including Mental Diseases. 2. Practical and Clinical Surgery. 3. Obstetrics and Diseases of Women and Children. 4. Morbid Anatomy. 5. Forensic Medicine. 6. Hygiene.

Candidates, before presenting themselves for the Final Examination, are required to have passed the Intermediate Examination, and to furnish certificates—1. Of having

[a] The Examinations at present recognised are:—1. The Preliminary Examination of the Victoria University, provided Latin and Mechanics have been taken up. 2. The Matriculation Examination of the University of London. 3. The Previous Examination of the University of Cambridge. 4. Responsions and Moderations of the University of Oxford. 5. The Leaving Certificate Examination of the Oxford and Cambridge Boards, provided that it include Latin, English, Mathematics, and Elementary Mechanics. 6. The Final Examination for Graduation in Arts of any University in Great Britain and Ireland.

attended the Medical and Surgical Practice of a hospital or hospitals, approved by the University, during at least three years, of which years two at least must be subsequently to the date of passing the Intermediate Examination, except when exemption has been granted by the General Board of Studies, after report from the Departmental Board of Medical Studies. 2. Of having attended during at least twelve months demonstrations in the post-mortem theatre of a hospital. 3. Of having attended, under proper supervision, at least twenty cases of labour. 4. Of having during at least three months received in either a general or a special hospital, approved by the University, such Clinical Instruction in the Diseases peculiar to Women as shall be approved by the University. 5. Of having acquired proficiency in Vaccination. 6. Of having attended courses of instruction, approved by the University, in a College of the University or in a College or Medical School recognised for this purpose by statute of the University, in the following subjects:—(*a*) Systematic Medicine, (*b*) Clinical Medicine, (*c*) Systematic Surgery, (*d*) Practical Surgery, (*e*) Clinical Surgery, (*f*) Obstetrics and Diseases of Women and Children, (*g*) Pharmacology and Therapeutics, (*h*) General Pathology and Morbid Anatomy, (*i*) Forensic Medicine, (*j*) Hygiene.

Degree of Doctor of Medicine.—Candidates are not eligible for the degree of Doctor of Medicine unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. Candidates for the degree of Doctor of Medicine are required to present a printed dissertation embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine. No candidate will be admitted to the degree unless his dissertation, after report from the Departmental Board of Medical Studies, shall have been recommended by the General Board of Studies to the Council for acceptance in that behalf. Candidates may be examined on any subject connected with their dissertations.

Degree of Master of Surgery.—Candidates are not eligible for the degree of Master of Surgery unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree.

The subjects of examination are as follows: (1) Surgical Anatomy; (2) Surgical Pathology; (3) Practical Surgery, including the performance of operations on the dead body; (4) Clinical Surgery; (5) Ophthalmology.

UNIVERSITY OF EDINBURGH.

Three medical degrees are conferred by the University of Edinburgh—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the degree of Bachelor of Medicine.

No one is admitted to the degrees of Bachelor of Medicine and Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course and two courses of not less than fifty lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week during the prescribed periods.[9]

Every candidate for the degree of M.B. and C.M. must give sufficient evidence by certificates—(*a*) That he has studied each of the following departments of medical science—namely, Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children, and General Pathology, each during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures;[10] Practical Chemistry, three months; Practical Midwifery, three months at a midwifery hospital, or a certificate of attendance on six cases from a registered medical practitioner; Clinical Medicine, Clinical Surgery,[11] courses of the same duration as those of not less than one hundred lectures, or two courses of three months' lectures, being given at least twice a week; Medical Jurisprudence, Botany, Natural History (including Zoology), during courses including not less than fifty lectures. (*b*) That he has attended, for at least two years, the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons. (*c*) That he has attended, during a course of not less than fifty hours' instruction, the class of Practical Materia Medica in the University of Edinburgh, or a similar class conducted in a university or recognised school of medicine, or a similar class conducted at the laboratory of a hospital or dispensary, or elsewhere, by a teacher recognised by the University Court under Section VI. Sub-section 4; or that he has been engaged by apprenticeship for not less than two years with a registered medical practitioner, or a member of the Pharmaceutical Society of Great Britain, or a member of the Pharmaceutical Society of Ireland, or a pharmaceutical chemist, or chemist and druggist, registered under the provisions of the "Act for regulating the qualifications of pharmaceutical chemists, 1852," "The Pharmacy Act, 1868," or "The Pharmacy Act (Ireland), 1875," in the *bond fide* compounding and dispensing of drugs, and the preparation of their officinal and other preparations under his superintendence. (*d*) That he has attended, for at least six months, by apprenticeship or otherwise, the out-door practice of a hospital, or the practice of a dispensary physician, a surgeon, or a member of the London or Dublin Society of Apothecaries. (*e*) That he has attended, during courses of not less than fifty hours' instruction, classes of Practical Physiology and Practical Pathology in the University of Edinburgh, or in a university or school of medicine recognised by Sub-sections 2 and 4 of Section VI. of Ordinance No. 8, Edinburgh No. 3, or upon classes thereof, conducted by a teacher recognised by the University Court under the said Sub-section 4.

Students of Medicine in the London schools, and in the school of the College of Surgeons in Dublin, can obtain there two *anni medici* out of the four required for the Edinburgh degrees in Medicine. Courses of lectures in these schools, and the courses of the medical teachers and of the science teachers in King's College and in University College, London, in the subjects of graduation, are regarded as equivalent to lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which when only three months' courses are not received as equivalent. One *annus medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *annus medicus* by attending either (*a*) full winter courses on any two of the following subjects—Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such course and two three months' courses on any of the following subjects—Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in (*a*), attendance on a third course, although unnecessary to constitute an *annus*, will also be accepted. The other subjects and the additional courses, not given in London or Dublin, necessary for the degrees of the University, require to be attended at this University. In provincial schools, where there are no lecturers recognised by the University Court, a candidate can only have one *annus medicus*, and this is constituted by attendance at a qualified hospital along with a course of Practical Anatomy. But in a provincial school where there are two or more lecturers recognised by this University, a second *annus medicus* may be made by attendance on at least two six months', or one six months' and two three months', recognised courses.

Every candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine a declaration in his own handwriting that he has completed his twenty-first year, or that he will have done so on or before the day of graduation, and that he will not be on the day of graduation under articles of apprenticeship to any surgeon or other master. This declaration, along with a statement of studies, accompanied with proper certificates, is appended to the schedule for the Final Examination, and must be signed before the schedule is given in.

[9] No course of lectures will be allowed to qualify unless the lecturer certifies that it has embraced at least one hundred lectures, or fifty lectures, in conformity with the requirements of this section. Three months' courses on Materia Medica, Pathology, and Midwifery do not qualify.

[10] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for an examination in Anatomy with a view to a degree until they have dissected the human body at least once.

[11] The Medical Faculty recommend that medical students should not attend Clinical Surgery during their first six months' attendance on Clinical Medicine.

Each candidate is examined, both in writing and orally, on Chemistry, Botany, and Natural History; on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; clinically, on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *annus medicus*. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degrees of Bachelor of Medicine and Master in Surgery, and who is of the age of twenty-four years, and produces a certificate of having been engaged, subsequently to his having received the degrees of M.B. and C.M., for at least two years in attendance on a hospital, or in the military or naval medical service, or in medical and surgical practice; provided always that the degree of M.D. shall not be conferred on any person unless he be a graduate in Arts of one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified, or unless he shall, before or at the time of his obtaining the degrees of M.B. and C.M., or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. of the statutes relative to preliminary examination. Two of these must be Greek and Logic or Moral Philosophy, and the third is to be one of the following subjects, at the option of the candidate—namely, French, German, Higher Mathematics, and Natural Philosophy; and provided also that the candidate for the degree of M.D. shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, or any branch of knowledge comprised in the professional examinations for the degrees of M.B. and C.M., which he may have made a subject of study after having received that degree.

The fees for M.B. and C.M. are £22. Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25. The fees for examination must be paid at the secretary's office ten days before the dates thereof, and the fees for the degree of M.D. and the stamp duty for the latter must be paid on or before the 15th day of July in the year of graduation. In the event of the candidate not passing any one of the professional examinations, the fee is not returned; but he may appear at one subsequent examination without paying an extra fee, and at any future examination on paying one-half the fee.

UNIVERSITY OF GLASGOW.

Three degrees in Medicine are granted—viz., Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. The curricula of study and the examinations for the several degrees conferred are nearly the same as in the University of Edinburgh. The annual term for conferring medical and surgical degrees is the 1st of August. The Preliminary Examinations of medical students in branches of general education begin on the 5th of October, 1887, and on the 28th of March, 1888.

The fees for the degrees are £21 for M.B. and C.M., which are obtained together, and £15 for M.D.

The regulations under which the above degrees are granted and the notices of the subjects of examination may be obtained by application to the assistant-clerk, Matriculation Office, the University.

The first, second, and third Professional Examinations are held in April and in October each year, and the fourth or final examination is held annually in June and July.

UNIVERSITY OF ABERDEEN.

The curricula for the several degrees conferred are nearly the same as in the University of Edinburgh.

Professional Examinations will be held twice in each year—namely, in April and July, directly after the close of the winter and summer sessions.

The fees for graduation are the same as in the University of Edinburgh. Matriculation fee, including all dues, for the winter and summer sessions, £1; summer session alone, 10s.

Candidates who commenced their medical studies before November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been in the University of Aberdeen.

Besides the Royal Infirmary, students have the opportunity of attending the following institutions: Sick Children's Hospital; General Dispensary, and Lying-in and Vaccine Institutions, daily; Royal Lunatic Asylum; Eye Institution, in which is given clinical instruction on the Diseases of the Eye, and on the application of the Ophthalmoscope for their diagnosis.

Regulations for the Diploma in Public Health (D.P.H.).—Candidates for the diploma must have graduated in Medicine in the University before they receive the diploma; and they must give evidence of having attended a course of instruction in Analytical Chemistry or in Practical Hygiene. The diploma is conferred after an examination in Public Health, held in March and July of each year. Candidates desiring to appear for examination at either of these periods must send their names, with the necessary fee, to the Secretary of the Medical Faculty before the first day of the month in which the examination takes place. The fee for the examination is 3 guineas. In the event of a candidate failing to pass the examination, a fee of 1 guinea will be charged for each subsequent examination for which he may enter. The examination is conducted by the examiners for the medical degrees. The examination is written, oral, and practical. The subjects and scope of the examination are as follows:—1. Physics and Meteorology: The general principles of Physics in so far as they relate to Heat and Ventilation, Water Supply and Drainage. The elements of Meteorology and Climatology. Practical exercises in the use of Meteorological Instruments. 2. Chemistry and Microscopy: The Composition and Analysis of Air, Water, and Sewage; the Composition and Adulterations of the more common Foods and Beverages; Diseased and Putrid Food. Practical exercises in the Chemical and Microscopical examination of Air, Water, and Foods. 3. General Hygiene: Duties of Medical Officers of Health; Nature and Construction of Dietaries; Construction and Sanitary Arrangements of Houses, Hospitals, Workshops, Factories, Towns, &c., including interpretation of plans; Ventilation, Water Supply, Sewerage, Disposal of Dead; Etiology, Prophylaxis (including Vaccination), and Control of Infectious Diseases; Unhealthy Occupations. Practical exercises in examining and reporting on the Construction and Sanitary Arrangements of Houses, &c. 4. Sanitary Law and Vital Statistics: Laws relating to the Public Health of Scotland, England, or Ireland, at the option of the candidate. Laws relating to Vaccination, and Registration of Births, Marriages, and Deaths. Methods and Data of Vital Statistics, mainly in so far as they relate to the birth, marriage, and death rate of communities.

Application for further information should be addressed to the Dean of the Medical Faculty.

A diploma in Public Health is granted by the University to its Graduates in Medicine, after a special examination. The diploma can be entered on the Register of the General Medical Council. The Regulations can be obtained on application to the Dean.

UNIVERSITY OF ST. ANDREWS.

Two degrees in Medicine are granted—namely, Bachelor of Medicine and Master in Surgery (M.B., C.M.), and Doctor of Medicine (M.D.). The curricula for these degrees, and the regulations under which they are conferred, differ from those of the University of Edinburgh only in the particulars noticed below.

The degree of *Doctor of Medicine* may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years whose professional position and experience are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always that degrees will not be conferred under this section on a greater number than ten in any one year. The examinations are held yearly towards the end of April. Candidates must lodge with the Dean of the Medical Faculty the following certificates, along with application for admission to examination:—1. A cer-

tificate of age. being a baptismal certificate or an affidavit of age. 2. Holograph certificates from at least three medical men of acknowledged reputation in the medical profession or in the medical schools, recommending the candidate to the Senatus for the degree, and testifying to his professional skill and position. As only ten can graduate yearly, candidates will be selected whose service and certificates seem to the Medical Faculty to present the highest professional claims; and where these seem equal, preference will be given to age and priority of application. 3. A portion of the graduation fee (viz., £10 10s.) shall be forfeited should the candidate fail to appear or to graduate at the time appointed. A satisfactory examination, written and *vivâ voce*, must be passed in the following departments—viz, Materia Medica and General Therapeutics, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery, and Diseases of Women and Children.

No one will be received as a candidate for the degree of *Bachelor of Medicine and Master in Surgery* unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities or colleges—viz.. the Universities of St. Andrews, Glasgow, Aberdeen, Edinburgh, Oxford, and Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

Subject always to the condition here specified, the studies for candidates for the degree of Bachelor of Medicine and Master in Surgery will be under the following regulations. The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specifird, or in the hospital schools of London, or in the school of the College of Surgeons of Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court. Attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and during the same period on a course of Practical Anatomy, may be reckoned as one of such remaining years.

Every candidate for examination for the degree of M.B. and C.M. is required to lodge a declaration of age, a statement of his course of study, his inaugural dissertation, and all his certificates with the Dean of the Medical Faculty, on or before the 25th of March in each year.

UNIVERSITY OF DUBLIN (TRINITY COLLEGE).

Matriculation.—All students in the School of Physic intending to practise Physic must be matriculated, for which a fee of 5*s.* is payable. No student can be admitted for the winter course after Nov. 25th.

Previous Medical Examination.—Candidates for degrees and licences in Medicine and Surgery are required to pass an examination in Physics, Chemistry, Botany, Comparative Anatomy, Descriptive Anatomy, and Institutes of Medicine (Practical Histology and Physiology) previously to their degree examination.

Bachelor in Medicine.—A candidate for this degree must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same Commencements as that at which he receives his degree of B.A., or at any subsequent Commencements. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on a single course of each of the following lectures—Anatomy, Practical Anatomy, Theory of Surgery, Chemistry, Materia Medica and Pharmacy, Physiology, Practice of Medicine, Midwifery, Botany, Medical Jurisprudence, Heat, Electricity, Magnetism, Comparative Anatomy; three courses of nine months' attendance on the Clinical Lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College; six months' instruction in Practical Midwifery, including Clinical Lectures; a certificate of personal attendance on Fever cases, with names and dates of cases. Six months' dissections, three months' laboratory instruction in Chemistry, three months' Practical Histology, and one month's instruction in Vaccination are required. Any of the above-named courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows. Fee for the *Liceat ad Examinandum*, £5; for the M.B. degree, £11.

Doctor in Medicine.—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must read a thesis or undergo an examination before the Regius Professor of Physic, in accordance with the rules and statutes of the University. Total amount of fees for this degree, £13.

Bachelor in Surgery.—A Bachelor in Surgery must be a Bachelor in Arts and in Medicine, and have spent four years in the study of Surgery and Anatomy. He must also pass a public examination in the Hall before the Professors of the School of Physic, having previously completed the prescribed curriculum of study, which includes the following additions to the courses named above for the M.B.: Operative Surgery, Two Courses of Dissections, Ophthalmic Surgery.[12] Candidates are required to perform surgical operations on the dead subject. Fee for the *Liceat ad Examinandum*, £5; for the degree of Bachelor in Surgery, £5.

Master in Surgery.[13]—A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the degree of Bachelor in Surgery for three years; and must read a thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to regulations to be approved by the Provost and Senior Fellows. Fee for the degree of Master in Surgery, £11.

University Licences.—Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed two years in Arts and four years in medical studies.

Licentiate in Medicine.—The medical course and examination necessary for the licence in Medicine are the same as for the degree of M.B. Fee for the *Liceat ad Examinandum*, £5; for the licence in Medicine, £5.

Licentiate in Surgery.—The surgical course and examination necessary for the licence in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Liceat ad Examinandum*, £5; for the licence in Surgery, £5.

The total cost of the education and first degrees in Medicine and Surgery is as follows, in addition to the fees for education in Arts and B.A. degree (£83 4*s.*): Medical and Surgical Lectures, £60 12*s.* 6*d.*; Hospitals, £44 2*s.*: Medical and Surgical Examinations and Degrees, £26.

ROYAL UNIVERSITY OF IRELAND.

The following degrees are conferred by the University in this Faculty: Bachelor of Medicine, Doctor of Medicine, Master of Surgery, Master of Obstetrics; in Sanitary Science, a special diploma. All the medical examinations are held twice yearly—viz., towards the end of April and in October.

The course for degrees in Medicine &c. is one of at least four years' duration. Students who have commenced their medical studies since January 1st, 1884, must also produce a certificate of having been registered as students in Medicine by the Medical Council for a period of at least forty-five months. No one can be admitted to any degree in Medicine who is not fully twenty-one years of age. All candidates for these degrees are, in addition to attending the lectures and complying with the other conditions to be from time to time prescribed, required to pass the following examinations: the Matriculation Examination, the First University Examination, the First Examination in Medicine, the Second Examination in Medicine, and the Degree Examination.

The First Examination in Medicine.—Students are admitted to this examination after the lapse of one academical year from the time of their matriculation. The subjects of this examination are—Zoology, Botany, and a modern language (either French or German). Candidates who have passed in a modern language at the First University Examination in Arts are exempt from again presenting this subject at the First Examination in Medicine, except as a qualification for admission to compete for Honours, the answering of the candidates in the three subjects above mentioned being taken into account in awarding Honours.

The Second Examination in Medicine.—Students are admitted to this examination after the lapse of one academical year from the time of passing the First Examination in Medicine, provided they have completed the First Period of the Course of Medical Studies. The subjects of this exami-

[12] Students in the School of Physic who matriculated before June 22nd, 1872, may obtain the degree of Master in Surgery according to the regulations in force previously to the creation of the degree of Bachelor in Surgery.

[13] Masters in Surgery must be of the standing of Master of Arts.

nation are—Anatomy, Physiology, Materia Medica (Pharmacology), and Chemistry.

The Examination for the Degree of M.B.—Students are admitted to this examination after the lapse of one academical year from the time of passing the Second Examination in Medicine, provided they have completed the Second Period of the Course of Medical Studies. The subjects of this examination are—Anatomy, including Practical Anatomy; Physiology, including Practical Physiology and Histology; Surgery, Midwifery, and Diseases of Women and Children; Pathology; Vaccination; Theory and Practice of Medicine, Medical Jurisprudence; Mental Diseases; Hygiene.

M.D. Degree.—Candidates may be admitted to this degree after the lapse of two academical years from the time of obtaining the degree of M.B.; provided, however, that all persons who were students in Medicine in the Queen's University at the date of its dissolution shall be entitled, if they so desire, to obtain the degree of M.D., instead of the degree of M.B., upon passing the examination herein prescribed for the M.B. degree. Every candidate will be examined at the bedside, and required to diagnose at least six cases, medical and surgical, and prescribe treatment, and to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon. Every candidate must submit to the medical examiners, for their approval, a thesis certified by him (or her) to have been composed by himself (or herself). No thesis will be approved which does not contain some original or personal observations in Practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum, or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The *M.Ch. Degree* will be conferred only on graduates in Medicine of the University. The examination will comprise the Theory and Practice of Surgery, including Operative and Clinical Surgery.

The *M.A.O. Degree* will also be conferred only on graduates in Medicine of the University. The examination will comprise the Theory and Practice of Midwifery, and the use of Obstetrical Instruments and Appliances. Candidates will be required to undergo a special written examination in Midwifery, Gynæcology, and Diseases of Children, in addition to the other tests.

Diploma in Sanitary Science.—This diploma will be conferred only on graduates in Medicine of the University. Candidates must give notice in writing to the secretaries of their intention to present themselves, and must pay the prescribed fee of £2 at least one month previously to the examination. The examination will include the following subjects:—Physics, Climatology, Chemistry, Geology, Sanitary Engineering, Hygiene, Sanitary Law, and Vital Statistics. Proficiency in practical work and an adequate acquaintance with the instruments and methods of research which may be employed for hygienic investigations are indispensable conditions of passing the examination.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The licence of this College is a qualification to practise Medicine, Surgery, and Midwifery, and is recognised by the Local Government Board as a qualification in Surgery as well as in Medicine.

Licentiates.—Every candidate for the College licence (except when otherwise provided by the bye-laws) is required to produce satisfactory evidence to the following effect:—Of having attained the age of twenty-one years. Of moral character. Of having passed before the commencement of professional study an examination in the subjects of general education recognised by the General Medical Council. Of having been registered as a medical student in a manner prescribed by the General Medical Council. Of having been engaged in professional studies during at least forty-five months, of which at least three winter sessions and two summer sessions shall have been passed at a recognised medical school or schools, and one winter session and two summer sessions in one or other of the following ways:—1. Attending the practice of a hospital or other institution recognised by the College for that purpose; 2. Receiving instruction as the pupil of a legally qualified practitioner having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Of having attended, during three winter sessions and two summer sessions, the medical and surgical practice at a recognised hospital or hospitals.[14] Of having discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months; and of having been engaged during six months in the clinical study of Diseases peculiar to Women. Of having received instruction in Chemistry, Practical Chemistry, Materia Medica, and Practical Pharmacy. Of having attended a course of lectures on the following subjects:—Anatomy (with dissections), during twelve months; Physiology; a practical course of General Anatomy during a winter or a summer session, consisting of not less than thirty meetings of the class; Pathological Anatomy; Principles and Practice of Medicine; Principles and Practice of Surgery; Midwifery and the Diseases peculiar to Women; Forensic Medicine. Of having attended Clinical Lectures on Medicine during nine months, and also Clinical Lectures on Surgery during nine months, and of having been engaged during a period of three months in the Clinical Study of Diseases peculiar to Women. Of having passed the professional examinations, of which there are three, each partly written, partly oral, and partly practical. The subjects of the first examination are: Chemistry, including Chemical Physics—viz., Heat, Light, and Electricity; Materia Medica and Pharmacy; and Osteology. The subjects of the second examination are Anatomy and Physiology. The subjects of the final examination are: Medical Anatomy and Pathology, including Morbid Anatomy; the Principles and Practice of Medicine; Surgical Anatomy and Pathology, including Morbid Anatomy; the Principles and Practice of Surgery; Midwifery and Diseases peculiar to Women; Forensic Medicine; Public Health and Therapeutics.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by a university in the United Kingdom, in India, or in a British colony, or by the College of Surgeons in England, Scotland, or Ireland, or the Faculty of Physicians and Surgeons of Glasgow, shall be exempt from re-examination on those subjects. Any candidate who shall produce satisfactory evidence of having passed an examination on Chemistry and Materia Medica, required for a degree in Medicine at a university in the United Kingdom, in India, or in a British colony, will be exempted from re-examination on those subjects. Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REGULATIONS RESPECTING THE EDUCATION AND EXAMINATIONS APPLICABLE TO CANDIDATES FOR THE DIPLOMA OF MEMBER OF THE COLLEGE.

Professional Examination.—The following are recognised modes of commencing professional education:—(1) Attendance on the practice of a hospital, or other public institution recognised by this College for that purpose. (2) Instruction as the pupil of a legally qualified surgeon, holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. (3) Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

Candidates, prior to their admission to the First or Primary Examination on Anatomy and Physiology, will be required to produce the following certificates—viz.: Of having, prior to the commencement of professional study, been registered by the General Medical Council. Of having attended lectures

[14] A three months' course of clinical instruction in the wards of a recognised lunatic hospital or asylum may be substituted for the same period of attendance in the medical wards of a general hospital.

on Anatomy during two winter sessions. Of having performed dissections during not less than two winter sessions. Of having attended lectures on General Anatomy and Physiology[15] during one winter session. Of having attended a practical course of General Anatomy and Physiology[16] during another winter or a summer session, consisting of not less than thirty meetings of the class.

Candidates who commenced their professional studies on or after October 1st, 1882, and shall have pursued those studies in recognised medical schools in England, will be required, before presenting themselves for the Primary or Anatomical and Physiological Examination for the diploma of Member of the College, to produce certificates of having passed an examination in Elementary Anatomy and Physiology, such examination to be conducted by their teachers at the several medical schools. (1) The periods at which the examinations shall be held will be determined by the teachers at the several medical schools, provided that an interval of not less than six months shall elapse between the date at which the candidates shall have passed the examination and the date of their presenting themselves for the Primary Examination at the College. (2) It shall be left to the teachers at the several medical schools to determine the nature and extent of the examination in Elementary Anatomy and Physiology.

Candidates, prior to their admission to the Second or Pass Examination on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery, will be required to produce the following certificates—viz.: Of being twenty-one years of age. Of having been engaged, subsequently to the date of registration by the General Medical Council, during four years, or during a period extending over not less than four winter and four summer sessions, in the acquirement of professional knowledge. Of having attended lectures on Surgery during one winter session. Of having attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding Clause 3.[17] Of having attended one course of lectures on each of the following subjects—viz.: Chemistry,[18] Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction), and a certificate of having personally conducted not less than ten labours, and Pathological Anatomy during not less than three months. Of having studied Practical Pharmacy during three months. Of having attended a three months' course of Practical Chemistry (with manipulations), in its application to medical study.[19] Of instruction and proficiency in the practice of Vaccination.[20] Of having attended, at a recognised hospital or hospitals, the Practice of Surgery, during three winter[21] and two summer[22] sessions. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months.[23] Of having, subsequently to the first winter session of attendance on Surgical Hospital Practice, attended at a recognised hospital or hospitals, Clinical Lectures on Surgery, during two winter and two summer sessions. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken charge of patients under the superintendence of a surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery. Of having attended during the whole period of attendance on Surgical Hospital Practice (see Clause 9) demonstrations in the post-mortem rooms of a recognised hospital. Of having attended, at a recognised hospital or hospitals, the Practice of Medicine, and Clinical Lectures on Medicine, during one winter and one summer session.

Special Notice.—Candidates commencing their professional education on or after the 1st of October, 1882, will not be admitted to the Second or Pass Examination until after the expiration of two years from the date of their passing the Primary or Anatomical and Physiological Examination for such diploma, except in the following cases:—When a candidate, before presenting himself for the Primary Examination, shall possess a recognised degree or diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary Examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the Primary Examination for the Fellowship, it being required in such case that not less than one year of attendance on the Surgical Practice of a recognised hospital shall intervene between the date of his passing the Primary Examination for the Fellowship and the date of his presenting himself for the Second or Pass Examination for the diploma of Member. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the Primary Examination at the end of his second winter session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the date of his passing the Primary Examination and the date of his presenting himself for the Second or Pass Examination for the diploma of Member. When a candidate, owing to illness, duly certified by one or more of the teachers of his medical school, shall be prevented from presenting himself for the Primary Examination on the completion of his second year of professional study. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary Examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation.

Certificates of attendance upon the practice of a recognised provincial or colonial hospital unconnected with, or not in convenient proximity to, a recognised medical school will not be received for more than one winter and one summer session of the hospital attendance required by the regulations of this College. Those candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from candidates for their diploma, together with a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge; and in the case of candidates who shall have pursued the whole of their studies at recognised foreign or colonial universities, upon the production of the several certificates required for their degree by the authorities of such universities, together with a certificate of instruction and proficiency in the practice of Vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the Preliminary Examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

[15] By the Practical Course referred to in Clause 5, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, &c.; but it is not hereby intended that the learners shall perform vivisections.

[16] The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

[17] The course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to surgery, on the living person or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents on the living person or on the dead body; the performance, where practicable, of the operations of surgery on the dead body; the use of surgical apparatus; the examination of diseased structures as illustrated in the contents of a museum of morbid anatomy and otherwise.

[18] The course of lectures on Chemistry included in Clause 5 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

[19] The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

[20] The certificate of instruction in vaccination must be such as will qualify its holder to contract as a Public Vaccinator under the Regulations at the time in force of the Local Government Board.

[21] The winter session comprises a period of six months, and, in England, commences on the 1st of October and terminates on the 31st of March.

[22] The summer session comprises a period of three months, and, in England, commences on the 1st of May and terminates on the 31st of July.

[23] It is intended that the candidate should receive the instruction required by Clause 10 at an early period of his attendance at the hospital.

Professional Examination.—This examination is divided into two parts. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. The Second or Pass Examination, on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery,[24] is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients.

The Primary Examinations are held in the months of January, April, July, and October, and the Pass Examinations in the months of January, April, July, and October. Candidates will not be admitted to the Primary Examination until after the termination of the second winter session of their attendance at a recognised school or schools; nor to the Pass or Surgical Examination until after the termination of the fourth year of their professional education. The fee of £5 5*s.*, paid prior to the first admission to the Primary Examination, is retained whether the candidate pass or fail to pass the examination, but is allowed as part of the whole fee of £22[25] payable for the diploma. A candidate, after failure at any Primary Examination, is required, on admission to any subsequent Primary Examination, to pay a further fee of £3 3*s.*, which is retained, whether he pass or fail to pass the examination, and which further fee is not allowed as part of the whole fee of £22 for the diploma.

The fee of £16 15*s.* is payable prior to each admission to the Pass Examination; but on each occasion of failure the balance of £11 10*s.* is returned to the candidate. A candidate, having entered his name for either the Primary or Pass Examination, who shall fail to attend, will not be allowed to present himself for examination within the period of three months from the date at which he shall have failed so to attend. A candidate referred on the Pass Examination is required, unless the Court of Examiners shall otherwise determine, to produce, prior to his admission to re-examination, a certificate of at least six months' further attendance on the surgical practice of a recognised hospital, together with lectures on Clinical Surgery, subsequently to the date of his reference.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

Regulations relating to the several Examinations applicable to Candidates who commenced their Professional Education on or after the 1st of October, 1884.

Any candidate who desires to obtain both the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England is required to comply with the following regulations, and to pass the examinations hereinafter set forth. Every such candidate who shall commence professional study on or after Oct. 1st, 1884, will be required, at the times prescribed for the respective examinations, to produce satisfactory evidence—1. Of having been registered as a Medical student by the General Medical Council. 2. Of having been engaged in professional studies at least forty-five months, during which not less than three winter sessions and two summer sessions shall have been passed at one or more of the medical schools recognised by the two Colleges. 3. Of having received instruction in the following subjects: (*a*) Chemistry, including Chemical Physics, meaning thereby Heat, Light, and Electricity; (*b*) Practical Chemistry; (*c*) Materia Medica; (*d*) Pharmacy. 4. Of having performed Dissections at a recognised medical school during not less than twelve months. 5. Of having attended at a recognised medical school—(*a*) a course of lectures on Anatomy during not less than six months, or one winter session; (*b*) a course of lectures on General Anatomy and Physiology during not less than six months, or one winter session; (*c*) a separate practical course of General Anatomy and Physiology during not less then three months. 6. Of having attended at a recognised medical school—(*a*) a course of lectures on Medicine during not less than six months, or one winter session; (*b*) a course of lectures on Surgery during not less than six months, or one winter session; (*c*) a course of lectures on Midwifery and Diseases peculiar to Women during not less than three months; (*d*) systematic practical instruction in Medicine, Surgery, and Midwifery; (*e*) a course of lectures on Pathological Anatomy during not less than three months; (*f*) demonstrations in the post-mortem room during the whole period of attendance on clinical lectures; (*g*) a course of lectures on Forensic Medicine during not less than three months. 7 Of having attended, at a recognised hospital or hospitals, the practice of Medicine and Surgery during three winter and two summer sessions. 8. Of having attended at a recognised hospital or hospitals during nine months Clinical Lectures on Medicine, and during nine months Clinical Lectures on Surgery, and of having been engaged during a period of three months in the Clinical Study of Diseases peculiar to Women. 9. Of having discharged, after he has passed the Second Examination, the duties of a Medical Clinical Clerk during six months, and of a Surgical Dresser during other six months. 10. Of having received instruction in the practice of Vaccination.

Professional Examinations.—There are three Professional Examinations, called herein the First Examination, the Second Examination, and the Third or Final Examination, each being partly written, partly oral, and partly practical. These examinations will be held in the months of January, April, July, and October, unless otherwise appointed. Every candidate intending to present himself for examination is required to give notice in writing to the registrar of the Royal College of Physicians, or to the secretary of the Royal College of Surgeons, fourteen clear days before the day on which the examination commences, transmitting at the same time the required certificates.

The subjects of the First Examination are—Chemistry, Chemical Physics, Materia Medica, Pharmacy, Elementary Anatomy, and Elementary Physiology. A candidate may take this examination in three parts at different times, or he may present himself for the whole at one time. A candidate will be admitted to the examination on Chemistry and Chemical Physics, Materia Medica, and Pharmacy, on producing evidence of having been registered as a medical student by the General Medical Council, and of having received instruction in Chemistry, Materia Medica, and Pharmacy; but he will not be admitted to the examination on Elementary Anatomy and Elementary Physiology earlier than the end of his first winter session at a medical school. A candidate rejected in one part or more of the First Examination will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and he will be re-examined in the subject or subjects in which he has been rejected.

The fees for admission to the First Examination are as follows: for the whole examination, £10 10*s.*; for re-examination after rejection in either of the parts, £3 3*s.*

The subjects of the Second Examination are Anatomy and Physiology. A candidate may present himself for examination in either of these subjects or parts separately, or in both at one time. A candidate will be admitted to the Second Examination after the lapse of not less than six months from the date of his passing the First Examination, on producing evidence of having completed, subsequently to registration as a medical student, eighteen months of professional study at a recognised medical school or schools, and of having complied with the regulations prescribed in Section I., Clauses 4 and 5. A candidate rejected in either part or in both parts of the Second Examination will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and will be re-examined in the subject or subjects in which he has been rejected.

The fees for admission to the Second Examination are as follows: for the whole examination, £10 10*s.*; for re-examination after rejection in either of the two parts, £3 3*s.*

The subjects of the Final Examination are: Medicine, including Therapeutics, Medical Anatomy, and Pathology; Surgery, including Surgical Anatomy and Pathology; Mid-

[24] Candidates can claim exemption from examination in Medicine and Midwifery under the following conditions—viz.: The production by the candidate of a degree, diploma, or licence in Medicine and Midwifery entitling him to register under the Medical Act of 1858, or a degree, diploma, or licence in Medicine and Midwifery of a colonial or foreign university approved by the Council of the College. A declaration by the candidate, prior to his admission to the Pass Examination, that it is his intention to obtain either of the qualifications in Medicine and Midwifery mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said qualification, or proof of having passed the several examinations entitling him to receive the same.

[25] This sum of £22 is exclusive of the fee of £2 paid for the Preliminary Examination.

wifery and Diseases peculiar to Women. A candidate may present himself for examination in these three subjects or parts separately or at one time. A candidate will be admitted to the Third or Final Examination on producing evidence—(1) of being twenty-one years of age; (2) of having passed the second examination; and (3) of having studied Medicine, Surgery, and Midwifery, in accordance with the regulations prescribed in Section I., Clauses 2 and 6 to 10. The Colleges do not admit to either part of the Third or Final Examination any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months, nor till the expiration of two years after his having passed the Second Examination. A candidate rejected in the Third or Final Examination, or in one or more of the three parts into which he may have divided it, will not be admitted to re-examination until after the lapse of a period of not less than six months from the date of rejection, and he will be re-examined in the subject or subjects in which he previously failed to pass. Any candidate who shall have obtained a colonial, Indian, or foreign qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and examination equivalent to those required by the Regulations of the two Colleges, shall, on production of satisfactory evidence as to age and proficiency in Vaccination, be admissible to the Second and Third Examinations.

The fees for admission to the Third or Final Examination are as follows: for the whole examination, £15 15*s.*; for re-examination after rejection in Medicine, £5 5*s.*; for re-examination after rejection in Surgery, £5 5*s.*; for re-examination after rejection in Midwifery, £3 3*s.*

Notice.—A candidate referred at the Primary Examination in either or both subjects is required, before being admitted to re-examination, to produce a certificate that he has pursued, to the satisfaction of his Teacher, or Teachers, in a recognised place of study, his Anatomical and Physiological Studies, or his Anatomical or Physiological Studies, as the case may be, during a period of not less than three months subsequently to the date of his reference.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The above Colleges and Faculty have made arrangements by which, after one series of examinations, held in Edinburgh or in Glasgow, the student may obtain the diplomas of the three co-operating bodies. The general principle of this joint examination is that it shall be conducted by a board in which each body is represented in those branches which are common to both Medicine and Surgery, but that the College of Physicians shall take exclusive charge of the examination in Medicine, and the College of Surgeons, along with the Faculty of Physicians and Surgeons of Glasgow, of the examination in Surgery.

The three co-operating bodies grant their Single Qualifications only to candidates who are already registered as possessing another and opposite qualification in Medicine or Surgery, as the case may be. The Royal College of Physicians of Edinburgh may, notwithstanding this agreement, grant its licence on examination to candidates already possessed of one or other of the surgical qualifications mentioned in Schedule A of the Medical Act, 1858; and the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, may each grant its licence on examination to candidates, already Licentiates of one of the Colleges of Physicians of the United Kingdom, or Graduates in Medicine of a British or Irish University. Copies of the Regulations for the Single Qualification of any of the bodies may be had on application to the respective secretaries.

Professional Education.—Candidates must have been engaged in professional study during forty-five months after passing the examination in General Education,[25] which period will include not less than four winter sessions' or three winter and two summer sessions' attendance at a recognised medical school. At the meeting of the General Medical Council in May, 1885, it was recommended that hereafter the duration of study should be five years.

The candidate must produce certificates or other satisfactory evidence of having attended the following separate and distinct courses of lectures: Anatomy, Practical Anatomy, Chemistry, Practical or Analytical Chemistry, Materia Medica, Physiology, Practice of Medicine, Clinical Medicine, Principles and Practice of Surgery, Clinical Surgery, Midwifery and the Diseases of Women and Children, Medical Jurisprudence, Pathological Anatomy. The six months' courses delivered in Scotland, with the exception of Clinical Medicine and Clinical Surgery, must consist of not fewer than 100 lectures. The three months' courses must consist of not fewer than 50 lectures. The candidate must also produce the following certificates: (*a*) Of having attended six cases of labour under the superintendence of the practitioner who signs the certificate, who must be a registered medical practitioner. (*b*) Of having attended for three months instruction in Practical Pharmacy, the certificate to be signed by the teacher, who must be a member of the Pharmaceutical Society of Great Britain, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicines to his patients, or a teacher of a class of Practical Pharmacy. (*c*) Of having attended for twenty-four months the practice of a public general hospital containing, on an average, at least eighty patients. (*d*) Of having attended for six months (or three months with three months' hospital clerkship) the practice of a public dispensary specially recognised by any of the co-operating bodies; or of having been engaged for six months as visiting assistant to a registered practitioner. (*e*) Of having been instructed by a registered medical practitioner in the Theory and Practice of Vaccination. Candidates shall be subjected to three Professional Examinations, herein called the First Examination, the Second Examination, and the Final Examination, to be conducted at separate times, partly in writing and partly practically and orally.

The First Examination will embrace Chemistry, Practical Chemistry, Elementary Anatomy, and Histology, and will take place not sooner than the end of the first year, including a winter and a summer session. The sum of £5 5*s.* must be paid to the Inspector of Certificates for this examination, not later than 11 A.M. of the Saturday preceding it. This sum will be considered as paid to account of the entire fee of £26 5*s.* payable for the three diplomas. In the case of a candidate being unsuccessful at this examination, he will be readmitted to examination after a prescribed interval on payment of £3 3*s.* if he has failed in all subjects, and £2 2*s.* if he has passed in one or more subjects. Any candidate who shall produce satisfactory evidence of having passed an examination in any of the subjects of the First Examination before any of the boards recognised by the co-operating authorities shall be exempt from examination in such subject or subjects. The certificates of examination upon which any candidate may claim exception from any of the subjects of the First and Second Examinations shall, in every case, specify the subjects embraced in such examination.

The Second Examination will embrace Anatomy, Physiology, Materia Medica, and Pharmacy, and will not take place before the termination of the summer session of the second year of study, including two winter and two summer sessions. The sum of £5 5*s.* must be paid to the Inspector of Certificates for this examination, not later than one week before the day of examination. In case of failure, the candidate will be readmitted to examination after the expiration of the prescribed period on payment of £3 3*s.* if he has failed in all subjects, and £2 2*s.* if he has passed in one or more subjects. Any candidate who shall produce satisfactory evidence of having passed in any of the subjects of the Second Examination before any of the boards recognised by the co-operating authorities will be exempt from examination in such subject or subjects; but no examination before such boards will be recognised as giving exemption unless it is co-extensive in its scope with the equivalent examination of this board, and is the only or the final examination on the subject or subjects required by the board at which it was passed.

The Final Examination will embrace the Principles and Practice of Medicine (including Therapeutics, Medical Anatomy and Pathology), Clinical Medicine, the Principles and Practice of Surgery (including Surgical Aatomy, Operative Surgery, and Surgical Pathology), Clinical Surgery, Midwifery (including Gynæcology), Medical Jurisprudence, and Hygiene, and it will not take place before the termination of the full period of study. Candidates shall not be exempted from examination in any of the subjects of the Final Examination, though some of them may have formed part of examinations passed before other boards.

[25] See the Laws relating to Registration.

All candidates shall be subjected, in addition to the written and oral examinations, to practical clinical examinations in medicine and surgery, which shall include the examination of patients, physical diagnosis, the use of the microscope, surgical appliances, bandages, &c. Every candidate must produce to the inspector, Mr. James Robertson, solicitor, 4, Lindsay-place (George IV. Bridge), Edinburgh, or to Mr. Alexander Duncan, Faculty Hall, 242, St. Vincent-street, Glasgow—(1) satisfactory evidence of his having attained the age of twenty-one years; (2) a certificate of his registration in the books of the General Medical Council (see Chap. IV.); (3) the certificates of the classes above enumerated. Of the fee payable for this examination, which is £15 15s., £5 5s. must be paid to the inspector not later than one week prior to the examination day, after which no candidate will be entered. The balance of £10 10s. must be paid before the candidate is admitted a licentiate of the co-operating bodies. In case of a candidate being unsuccessful at the Final Examination, he will be re-admitted to examination after the expiration of the prescribed period on payment of £5 5s.

KING AND QUEEN'S COLLEGE OF PHYSICIANS AND ROYAL COLLEGE OF SURGEONS IN IRELAND.

All information relative to the examinations under the Joint Scheme may be obtained from the Registrars of the College of Physicians and College of Surgeons, either of whom will receive the applications of candidates for permission to be examined, and with whom the bank receipt for fees and all certificates &c. are to be lodged at least fourteen days prior to the day fixed for the commencement of the examination.

The examinations commence on the first Monday in April, July, and October of each year, unless otherwise appointed by the Committee of Management.

First Professional Examination.—Candidates are required, before admission to the First Professional Examination, to produce evidence—(1) of having been registered by the General Medical Council as medical students at least nine months before the date of examination; (2) of having attended a course of lectures on Practical Anatomy, and one on Chemistry; (3) of having attended a course of Demonstrations and Dissections; (4) of having attended a summer course on Materia Medica, and one on Practical Chemistry; (5) of having studied Practical Pharmacy for three months in the Compounding Department of a Clinical Hospital, or in the Compounding Establishment of a Licentiate Apothecary or Member of the Pharmaceutical Society. The fee for this examination is £15 15s.

Second Professional Examination.—Candidates are required, before admission to the Second Professional Examination, to produce evidence of having passed the First Professional Examination; also certificates of having subsequently attended a Medico-Chirurgical Hospital for nine months, together with evidence of having taken notes to the satisfaction of the physicians or surgeons in charge of the cases, and certified under their hands of at least three Medical cases and three Surgical cases, in the wards of a recognised Medico-Chirurgical Hospital, and the following courses of Lectures:—Winter courses: Practical Anatomy, Demonstrations and Dissections, Physiology, Surgery. Summer course, three months: Practical Physiology, including Histology. The fee for this examination is £5 5s.

Third Professional Examination.—Candidates are required, before admission to the Third Professional Examination, to produce evidence of having passed the second examination; also certificates of having subsequently attended a Medico-Chirurgical Hospital for nine months, together with evidence of having taken notes to the satisfaction of the Physicians and Surgeons in charge of the cases, and certified under their hands, of at least three Medical cases, and three Surgical cases in the wards of a recognised Medico-Chirurgical Hospital, and of the following courses of Lectures:—Winter courses: Demonstrations and Dissections, Medicine, Midwifery, if not deferred to the fourth year. Summer course, three months: Medical Jurisprudence. The fee for this examination is £5 5s.

Fourth or Final Professional Examination.—Candidates are required, before admission to the Final Examination, to produce evidence—(1) of having been registered as a medical student by the General Medical Council at least forty-five months previously; (2) of having passed the Third Professional Examination; (3) of having subsequently attended a Medico-Chirurgical Hospital for nine months as extern pupil, or six months as resident pupil, unless a certificate to that effect has been accepted in the third year, and of having attended the following course of lectures:—Winter Course: Midwifery, unless taken in the third year. Certificates are also required—(1) of having attended a recognised midwifery hospital or maternity for six months in the winter or summer of either the third or the fourth year, with evidence of having been present at thirty labours; (2) of having for not less than three months studied fever in a recognised clinical hospital containing fever wards, and recorded from daily personal observation at least five cases of fever to the satisfaction of the attending clinical physician, as attested by his signature;[27] (3) of having attended a course of Operative Surgery in the summer session of either the third or fourth year; (4) of having attended, at a recognised ophthalmic and aural hospital, or at a recognised ophthalmic and aural department of a general hospital, clinical lectures in Ophthalmic and Aural Surgery during a period of three months. The fee for this examination is £15 15s.

SOCIETY OF APOTHECARIES OF LONDON.

Every student purposing to study medicine must previously pass a public examination in Arts recognised by the Medical Council. Such examination is held in the Hall of the Society on the first Friday and following day in March, June, September, and December, and is conducted by means of printed papers. Candidates will be examined in the English and Latin languages, Mathematics, Elementary Mechanics, and one of the following subjects at the option of the candidate—Greek, French, German, Logic, Botany, and Elementary Chemistry. The subjects may be passed at one or more examinations, and no re-examination is required in any subject passed. Registered medical students may present themselves for examination in special subjects if desired. A form of notice accompanying the regulations, obtained from the Society, has to be filled in by the candidate and sent with the fee (one guinea) fourteen days before the examination. Lists of successful candidates are published.

The examinations to be passed for the licence are two, named respectively the Primary and the Final, each being written, oral, and practical. The Primary is held on the first Monday and following Wednesday and Thursday in January, April, July, and October. The Final is divided into two parts: Part I. (Surgery) is held on the second and fourth Wednesday and following day of every month; Part II. (Medicine) is held on the third Monday and following Wednesday and Thursday of every month. The course of medical study must occupy four years, of which not less than three winter and two summer sessions must be passed at a recognised hospital and school of medicine.

Every candidate intending to present himself for examination must pay a fee of 10 guineas, of which sum 4 guineas are to be paid at the Primary. He must also give fourteen days' notice, and produce the following certificates: (1) for the Primary Examination, a certificate of the commencement of attendance on lectures, and of the course of medical study pursued; (2) for the Final Examination, a certificate of having completed four years' medical study in conformity with the curriculum prescribed, of moral character, and of having attained the age of twenty-one. On such certificates being found correct, a card of admission to the examination will be sent, stating the time of attendance.

Every candidate, before he can be qualified for the Primary Examination, must have gone through a course of medical study in Chemistry, General and Practical; Materia Medica; Pharmacy and Dispensing; Anatomy and Physiology, including Dissections and Demonstrations; and Histology, with Demonstrations. The above, including Prescriptions, Practical Chemistry in the Laboratory, and an examination on the living body, form the several subjects of examination for the Primary, which examination may be passed after the second winter session.

For the Final Examination the candidate must give evidence, before he can present himself, that he has gone through the following course of medical study:—Hospital Practice, Surgical and Medical, with Post-mortem Examinations; Principles and Practice of Surgery; Practical Sur-

[27] Attendance at a fever hospital will not be recognised if concurrent with that on Practical Midwifery.

gery; Clinical Surgical Lectures; Surgical Dresser; Principles and Practice of Medicine; Clinical Medical Lectures; Medical Clinical Clerk; Pathology; Forensic Medicine and Toxicology: Hygiene; Insanity; Obstetric Medicine and Gynæcology; Clinical Instruction in the same; a course of Practical Midwifery; attendance on not less than twenty Midwifery cases; and Practical Vaccination.

The Final Examination, which cannot be passed till after the completion of the medical course and the expiration of forty-five months from registration as medical student, embraces the above; and, in addition, in Part I., Surgical Anatomy, Surgical Pathology, surgical instruments and appliances, with a clinical examination of surgical cases; in Part II., obstetric instruments and appliances, microscopic examinations of morbid structure, and a clinical examination of medical cases. Part II. may be passed before Part I. if desired.

The Society give annually prizes for proficiency in Botany, in Materia Medica, and in Pharmaceutical Chemistry to registered medical students prior to the close of the third year, who have not been candidates for the prizes previously. They must reach the required standard. The examination in Botany is held on the third Thursday and following Saturday in June. That in Materia Medica and Pharmaceutical Chemistry is held on the third Wednesday and following day in August. The prizes for each consist of a Gold Medal, to be awarded to the candidate who distinguishes himself the most in the examination; and of a Silver Medal and a Book, or Books, to the candidate who does so in the next degree.

The examination of candidates for a certificate to act as an assistant in compounding and dispensing medicines, will be as follows:—In Translating Prescriptions; in the British Pharmacopœia; in Pharmacy, Pharmaceutical Chemistry, Materia Medica, and Medical Botany. Such examination is held on the third Thursday of every month: seven days' notice must be given, and a fee of 2 guineas paid.

Tickets of admission to the Society's Botanic Gardens at Chelsea, and to the Lectures on Botany when there given, can be had on application at the Hall of the Society.

APOTHECARIES' HALL OF IRELAND.

The Apothecaries' Hall of Ireland is at present engaged in completing a conjoint scheme of examination with the Royal College of Surgeons of Ireland, which, it is hoped, will be concluded by the end of this month. Till then particulars of the scheme cannot be published.

THE ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

Admission into the Army and Indian Medical Services is gained as the result of competitive examination. Candidates for both services must, before being admitted to examination, possess the double qualification to practise Medicine and Surgery, and be registered under the Medical Act, and must also furnish satisfactory certificates of moral character. Candidates for the Army must be between the ages of twenty-one and twenty-eight, in good health, and both parents of unmixed European blood; for the Indian Service, between twenty-two and twenty-eight, of sound bodily health, and natural-born subjects of Her Majesty. Both are examined as to physical fitness by a Board of Medical Officers. These conditions being satisfied, the candidate is admitted to the competitive examination, which is usually held in London twice a year, in the months of February and August. The subjects of examination are divided into *compulsory* and *voluntary*. The former comprise Anatomy and Physiology, Surgery, Medicine, including Therapeutics and the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of Drugs. The eligibility of the candidate for admission into the service is determined by the result of this part of the examination. The *voluntary* subjects are French, German, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with especial reference to Materia Medica, and for the Indian service Hindustani. Although the results of the examination on voluntary subjects do not affect the question of the eligibility of the candidate for a commission, they influence his position on the lists, which is determined by the numbers obtained under the two heads conjointly. After having passed this examination, the successful candidates for both services are sent to the Army Medical School at Netley as "surgeons on probation," with the rank of lieutenant and the daily pay of 8s., to go through a four months' course of special instruction in the duties required of them in the service. The staff of the school consists of four professors, all of them men of acknowledged ability and high standing in their special departments. Surgeon-General Sir J. Longmore, Kt., C.B., is Professor of Military Surgery; Deputy Surgeon-General D. B. Smith, M.D., of Military Medicine; Surgeon-Major De Chaumont, M.D., F.R.S., of Military Hygiene; and Sir W. Aitken, F.R.S., of Pathology. To each of these an Army Medical Officer is attached as Assistant Professor. The lectures on Military Surgery include gunshot and other wounds, transport of sick and wounded, duties of army medical officers in the field, during sieges, and on board troopships and transports, &c. Those on Military Medicine treat of tropical and other diseases to which soldiers are exposed in the course of their service, the mortality and invaliding by disease, in peace and war, at home and abroad. The course of Hygiene comprises the examination of water and air, the general principles of diet, with the quality and adulterations of food and beverages, the sanitary requirements of barracks, hospitals, and camps, the clothing, duties, and exercises of the soldier, and the circumstances affecting his health with the best means of preventing disease, and instruction in the mode of preparing the various statistical and other returns required of the medical officer. The surgeons on probation are detailed for duty in the wards of the hospital, under the Professors and Assistant Professors of Medicine and Surgery, and receive practical instruction in the mode of examining recruits. The surgeons on probation are provided with quarters, and are members of the excellent mess established at Netley. After having passed through the course of instruction they are examined on the subjects taught in the school, and their position on the list recommended for commissions is determined by the combined results of the competitive and final examinations. At the close of each session five prizes are awarded: the Herbert Prize of £20 to the surgeon on probation who has obtained the highest number of marks at the London and Netley examinations conjointly; the Parkes Memorial Bronze Medal to the one who gains the highest number of marks in the examination on Hygiene at Netley, combined with those given for the answers to a special question set on the same subject; the Martin Memorial Gold Medal to the highest number of marks in the final examination on Military Medicine, with the addition of those gained for a special question connected with it; the Montefiore Gold Medal and £20, awarded in the same manner for Military Surgery; and the Montefiore Second Prize, consisting of works on Military Surgery, to the surgeon on probation who obtains the second highest numbers in this branch.

Surgeons are promoted to be Surgeons-Major on completing twelve years' full-pay service, of which three must have been abroad. Before being promoted they will be required to pass an examination intended to test their progress and proficiency in all those branches of knowledge which are essential to their continued efficiency as medical officers, which may be taken at any time between the fifth and tenth year of service. It will embrace the following subjects: *a.* Surgery, operative and practical, including field surgery and transport of sick and wounded. *b.* Medicine and Pathology, including practical pharmacy and modes of prescribing and administering remedial measures, food, drink, &c. *c.* Hygiene, within the limits treated of in "Parkes' Practical Hygiene." *d.* Duties of executive medical officers during peace and war at home and abroad, and at sea, as defined in the various codes of regulations issued for their guidance. Medical officers possessing the following qualifications will be exempted from examination in Medicine, Surgery, and Hygiene respectively: *a.* The Fellowship of any Royal College of Physicians or Surgeons of Great Britain or Ireland, granted under a higher standard of qualification than that for Licentiate or Member, will be accepted in lieu of an examination in Medicine and Surgery. *b.* The diploma in Hygiene and State Medicine, or any corresponding diploma of any University in Great Britain or Ireland, such diploma being granted after examination, will be accepted in lieu of an examination in this subject. A certificate will be required from a recognised teacher of Surgery in any medical school at home or abroad in which operative surgery is taught, showing that the medical officer has gone satisfac-

torily through a complete course of operative surgery during the period within which the examination must be taken, and that he is a competent operator. A report on any subject of a practical professional character to be selected by the officer himself, and certified to be his own composition, and in his own handwriting, will also be required.

The selection of Surgeons-Major for advancement to the grade of Brigade Surgeon is made on the grounds of ability and merit, in determining which the following points will be considered:—The officer to be so selected must have been favourably reported on by the several military and departmental officers under whom he may have served, as set forth in their Annual Confidential Reports. He must be physically fit for general service, and have the necessary qualifying foreign and Indian service under existing rules. He must, before he can be selected for promotion to the grade of Brigade Surgeon, establish before an examining board, appointed for the purpose by the Director-General, his efficiency in the following subjects:—*a*. Hospital organisation and administration in peace and war. *b*. The administration, interior economy, command, and discipline of the Medical Staff Corps and bearer columns. *c*. The relations of the medical to all other departments and corps of the army, as defined by the various Codes of Regulations in force. *d*. Recruiting and invaliding. *e*. The management of sick and wounded in war. *f*. Field medical organisation. *g*. The transport of the sick and wounded by land and sea. *h*. The medical and surgical equipment and hospital arrangements for an army corps. *i*. The duties and responsibilities of medical officers, quartermasters, and non-commissioned officers and men of the Medical Staff Corps in regard to the charge and supervision of stores and equipments, and the nursing, dieting, and general management of the sick. *k*. The sanitary duties of medical officers in charge of camps and hospitals in the field and at the base of operations. *l*. The sanitary inspection and equipment of hospital ships and troop transports, and all other sanitary duties in camps, garrisons, and quarters. *m*. The origin, progress, and best methods of dealing with outbreaks of epidemic disease among troops under any given circumstance. *n*. The most approved methods of securing the sick, and especially the wounded, against pyæmia, septicæmia, and all other forms of blood poisoning, and the management and treatment of such outbreaks when they occur. *o*. Questions on Operative Surgery and Practical Medicine will also form part of this examination. A medico-topographical report will be required of any district or country in which British troops have been, or are likely to be, actively employed, as well as a sketch of the medical arrangements suitable for an army corps operating in such a district or country, compiled by the officer, and certified to be his own composition and in his own handwriting.

Brigade Surgeons, to be eligible for selection as Deputy Surgeons-General, must have served abroad at least ten years, of which three must have been in India. All officers under the rank of Deputy Surgeon-General are placed on the retired list at the age of fifty-five, and those of that rank and Surgeons-General at the age of sixty.

The regulations above noted respecting the promotion of Surgeons and Surgeons-Major are equally applicable to the Indian Medical Service.

The conditions of admission into the Naval Medical Service are the same as those for the Army; but the candidate is also required to declare his readiness to engage for general service, and to proceed on duty abroad whenever required to do so. After having passed the competitive examination in London the successful candidate will receive a commission as surgeon in the Royal Navy, "and will undergo a course of practical instruction in Naval Hygiene at Haslar Hospital."

Surgeons are promoted to Staff Surgeons after twelve years from date of entry, provided they pass the requisite examination; and Staff Surgeons to Fleet Surgeons after twenty years' service, if recommended by the Director-General. Deputy Inspectors-General are promoted by selection from the Fleet Surgeons, and Inspectors-General from the Deputy Inspectors-General having three years' foreign, four years' mixed, of which not less than two have been abroad, or five years' home service in such appointments as preclude foreign service, provided they have not refused to go abroad when called upon to do so. Inspectors and Deputy Inspectors-General are retired compulsorily at sixty, and other grades at fifty-five years of age, and all ranks at any time if they have not served for five years. In calculating service for retired pay, time on half-pay will be taken as equivalent to one-third service on full-pay.

The following tables, showing the rates of pay and half-pay of the three branches, will probably be acceptable to students who entertain any intention of entering the public service.

ARMY.

Rank.	*Rates of Pay.*	*Gratuities.*	*Relative Military Rank.*
	Daily.		
Surgeon on probation ..	£0 8 0 ..	— ..	Lieutenant
	Annual.		
Surgeon	200 0 0 ..	.. ..	Captain
„ aft. 5 years' service	250 0 0 ..	— ..	
	Daily.	Gratuity.	
„ 10 „ ..	0 15 0 ..	£1250 ..	
Surgeon-Major	1 0 0 ..	— ..	Major
„ aft. 15 years' service	1 2 6 ..	£1800 ..	
„ 18 „	— ..	£2500 ..	

Rank.	*Rates of Pay.*	*Half-pay.*	*Relative Military Rank*
Surgeon-Major:			
„ aft. 20 years' service	1 5 0 ..	£1 0 0 ..	Lieut.-Colonel
„ 25 „	1 7 6 ..	1 2 6 ..	
„ 30 „	— ..	1 5 0 ..	
Brigade Surgeon	1 10 0 ..	— ..	Lieut.-Colonel
„ aft. 5 years in rank	1 13 0 ..	—	(but always
„ aft. 20 years' service	— ..	1 7 6	senior to
„ 30 „	— ..	1 10 0	Surgeon-Major)
Deputy Surgeon-General ..	2 0 0 ..	1 15 ..	Colonel
Surgeon-General	2 15 0 ..	2 0 0 ..	Major-General

ROYAL NAVY.

Rank.	Daily pay.	Half-pay.	Gratuities and retired pay. Rank.	Gratuity.
	£ s. d.	£ s.		
Surgeon	0 11 6	0 6	Surgeon and Staff	
aft. 2 years' f. p. in rank	..	0 7	Surgeon:	
4 „	0 13 6	0 8	aft. 8 years' f. p.	£1000
6 „	..	0 9	12 „	1500
8 „	0 15 6	0 10	16 „	2250
10 „	..	0 11		
Staff-Surgeon:				
on promotion	1 1 0	0 12		
aft. 2 years' f. p. in rank	..	0 13		
4 „	1 4 0	0 14		
6 „	..	0 15		
Fleet Surgeon:			Fleet-Surgeon.	Daily.
on promotion	1 7 0	0 17	aft. 20 years'	£1 0 0
aft. 2 years' f. p. in rank	..	0 18	24 „	1 2 6
4 „	1 10 0	0 19	27 „	1 5 0
6 „	..	1 0	30 „	1 10 0
8 „	1 13 0	..		
Deputy Inspector-General:				
on promotion	2 2 0	1 5	..	1 15 0
aft. 2 years' f. p. in rank	..	1 7		
4 „	..	1 9	..	2 0 0
Inspector-General	2 15 0	1 18		

INDIAN MEDICAL SERVICE.

From date of leaving Netley till embarkation, 10s. per diem.

Pay and allowances in India.

Rank.	*Monthly pay.*	*If in charge of a Native Regiment.*	*Pension, annual.*
	Rs. a. p.	Rs.	£
Surgeon under 5 years' service ..	286 10 0	450	—
„ after 5 „ ..	304 14 2	600	—
„ 6 „ ..	392 5 2		
Surgeon-Major & Brigade-Surgeon:			
after 10 years' service	410 9 5		
„ 12 „	640 14 6	800	—
„ 15 „	677 6 11		
„ 17 „	..		292
„ 20 „	852 3 7		365
„ 25 „	888 12 0	1000	500
„ 30 „	..		700
Deputy Surgeon-General, 2 at ..	2250 0 0	aft. 5 yrs.' service in rank additnl. to service pension.	250
„ „ the rest at ..	1800 0 0		
Surgeon-General	2500 0 0		350
„ in Bengal	2700 0 0		

The Medical Student's Class Guide.

TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS FOR THE SESSION 1887-88.

LECTURES, &c.	ST. BARTHOL. HOSP. & COL.			CHARING-CROSS HOSP. & COLL.			ST. GEORGE'S HOSPITAL.		
	LECTURERS.	DAYS AND HOURS.	FEES. One Course.	LECTURERS.	DAYS AND HOURS.	FEES. One Session.	LECTURERS.	DAYS AND HOURS.	FEES. One Course.
WINTER SESSION.			£ s.			£ s.			£ s.
ANATOMY AND PHYSIOLOGY	Dr. Klein	M. Tu. Th. 10	9 9	Dr. Mott	Daily	6 6	Dr. Delépine	Daily, 12	7 7
							Ditto, *Phys. Chem.*	M T W T F 3½	3 3
ANATOMY, DESCRIPTIVE & SURGICAL	Mr. Marsh Mr. Langton	Tu. W. Th. F. 9	7 7	Mr. Bellamy	M. W. F. 9	6 6	Mr. Bennett	M. W. F. 9½	7 7
ANATOMICAL DEMONSTRATIONS	Messrs. Clarke, Lockwood, and Jessop	Daily, 10 to 4	...	Mr. Cantlie Mr. Boyd	Daily	6 6	Messrs. Rose & Allingham Ditto, *Osteology* *Histol.* Dr Delépine	Daily T. Th. S. 9 M. T. Th. F. 10	... ... 3 3
CHEMISTRY	Dr. Russell	M. W. F. 9	6 16	Mr. Heaton	M. W. F 4	4 6	Mr. Donkin	T. Th. S. 11	6 6
MEDICINE	Dr. Andrew Dr. Gee	M. Tu. Th. 3½	6 16	Dr. Pollock	M. W. 4, Th. 3	7 7	Dr. Dickinson	T. Th. F. 3	7 7
SURGERY	Mr. Savory	W. Th. F. 2½	6 16	Mr. Barwell	Tu. Th. F. 4	7 7	Mr. Pick	Tu. Th. S. 9½	7 7
HOSPITAL PRACTICE:									
PHYSICIANS...	Dr. Andrew Dr. Church Dr. Gee Dr. Duckworth Dr. M. Duncan (*Obstet.*)	Tu. Th. S. M. Tu. Th. Tu. Th. S. M. Tu. Th. F. S.	6 mths. 15 15	Dr. Pollock Dr. Green Dr. Bruce	M. Th. W. S. Tu. F. 2	6 mths. 10 10 12 mths. 15 15	Dr. Wadham Dr. Dickinson Dr. Whipham Dr. Cavafy *Obst. Phys.:* Dr. Champneys	M. F. 1 M. T. Th. F. 1 Tu. W. S. 1 T. S. 1 T. F. 12	12 mths. 10 10
ASSISTANT-PHYSICIANS ...	Dr. Hensley Dr. Brunton Dr. Norman Moore Dr. S. West	Tu. F. 11 W. S. 11 M. Th. 11	...	Dr. Abercrombie Dr. Labbock Dr. Willcocks Dr. Murray	Tu. F. W. S. M. Th. W. S. 1.30	...	Dr. Ewart Dr. Owen	M. F. 12 T. S. 12	...
SURGEONS	Messrs. Savory, Willett, Smith, Langton, and Baker	Daily M. Th. F. S. Tu. F. S.	6 mths. 19 19	Mr. Barwell Mr. Bellamy Mr. Bloxam	Tu. F. M. Th. W. S. 2	6 mths. 10 10 12 mths. 15 15	Mr. Holmes Mr. Rouse Mr. Pick Mr. Haward *Ophth. Surg.:* Mr. B. Carter Mr. Bennett Mr. Dent *Assist. Ophth.:* Mr. Frost	M. W. Th. F. 1 M. W. Th. F. 1 T. W. Th. S. 1 T. W. Th. S. 1 T. Th. F. 2 M F 12, W T 1 T. S. 12, W. Th. 1 W. S. 2	12 mths. 10 10
ASSISTANT-SURGEONS... ...	Messrs. Marsh, Butlin, Walsham, Crippe, and Bruce Clarke *Ophth.-Surgs.:* Mr. Power Mr. Vernon	Daily, 12 Tu. Th. S. 1½	...	Mr. Cantlie Mr. Morgan Mr. Stanley Boyd	M. Th. Tu. F. W. S.	mths. 15 15			
PRACTICAL SURGERY ...	...	...	...	Mr. Shadld Mr. Bloxam	M. S. 1.30 T. W. F. 3				
CLINICAL MEDICINE... ...	Drs. Andrew, Church, Gee, and Duckworth	... F. 1	...	The Physicians and Assistant-Physicians	Weekly	...	The Physicians	M. 2	...
CLINICAL SURGERY	Messrs. Savory, Smith, Willett, Langton, and Baker	S. 12.45	...	The Surgeons and Assistant-Surgeons	Weekly	...	The Surgeons	Tu. 2	...
CLINICAL MIDWIFERY, &c.	Dr. Duncan	...	...	Drs. Black & Routh	T. F. 1.30	...	Dr. Champneys	W. 2	...
DENTAL SURGERY	...	S. 10	...	Mr. Fairbank	M. W. F. 9	...	Mr. Winterbottom	Tu. 10 Operations Thurs. at 1 Operations on the Eye, F. 1½	...
	[*Hygiene:* Dr. Thorne M. 10]	Operations W. & S. 1½ Post-mort. exam. daily at 12 & 2½							
SUMMER SESSION.									
MATERIA MEDICA, &c. ...	Dr. Brunton	Tu. Th. S. 10, W. 9	6 16	Dr. Willcocks	M. W. F. 9	4 4	Mr. J. Woodland	M. W. F. 2	4 14
MIDWIFERY, &c.	Dr. M. Duncan	Daily, 9	5 5	Dr. Black	M. Tu. W. F. 3	4 4	Dr. Champneys	M. W. F. 9	4 14
BOTANY	Rev. G. Henslow	M. W. F. 10	4 4	...	...	...	...	...	...
MEDICAL JURISPRUDENCE	Dr. Hensley	M. Tu. S. 9	4 4	Dr. Abercrombie Mr. Heaton (*Tox.*)	W. F. 9 F. 12	4 4	Mr. Owen	Tu. Th. S. 9½	4 14
PATHOLOGICAL ANATOMY	Dr. Norman Moore (& in Winter, F. 11)	F. 11, Tu. 3½	2 12	Dr. Murray	Daily	...	Dr. Delépine	M. 4, W. Th. F. 3½	...
PRACTICAL CHEMISTRY ...	Dr. Russell	M. Tu. F. 11 to 1	3 3	Mr. Heaton Mr. Vacy	Daily M. Th. 2-4	5 5	Mr. Donkin Dr. G. B. Howes	Daily M. F. 4	4 4 4 4
COMPARATIVE ANATOMY...	Dr. Shore	M. Th. 11	2 12	Dr. Garson	S. 9	3 3	Dr. Whipham	W. 3	3 3
PATHOLOGY & MORB. ANAT.	...	...	...	Dr. T. H. Green	Tu. W. F. 4	...	(in Winter)	...	...
OPHTHALMIC SURGERY ...	Mr. Power Mr. Vernon In Winter	Tu. W. 4 M. 2	2 12	Staff of Royal West. Oph. Hosp.	Daily	...	Mr. B. Carter *Pract. Med.:* Dr. Whipham	W. 4 T. Th. S. 9 in Summer	... 4 4
PSYCHOLOGY	Dr. Claye Shaw	...	2 12	...	...	...	...	...	...
DENTAL SURGERY	...	...	...	Mr. Fairbank	M. W. F. 9	...	Mr. Winterbottom	Tu. 10	...
PRACTICAL SURGERY... ...	Mr. Butlin Mr. Walsham (and in Winter)	...	...	Messrs. Bloxam & Morgan (in Winter & Sum.)	Tu. W. Th. F. 9	5 5	Mr. Dent	M. 3, T. 3½ W. F. 3	4 4
PRACTICAL PHYSIOLOGY...	Dr. Harris (and in Winter)	...	7 7	Dr. Mott (& in Winter)	T. W. F. 2-4	6 6	*Hyg.:* Dr. Bridges *Aural Surg:* Sir W. Dalby	T. 2	
PRACTICAL PHARMACY ...	Pharm. Laborat.	...	...	Mr. Sandall	Daily	3 3	...	...	...
OPERATIVE SURG. (DEMONST.)	Messrs. Clarke and Lockwood	...	5 5	Mr. Bloxam	T. W. Th. F. S. 9	*	Mr. Turner *Pract. Midw.:* Dr. Champneys	M. W. F. 9½ W. 1	2 2 ...
DISEASES OF THE EAR ...	Mr. Cumberbatch	Tu. F. 2	...	Mr. Cantlie	F. 9	...	Sir W. Dalby	T. 2	...
DISEASES OF THE SKIN ...	Mr. Cripps	F. 2½	...	Dr. Sangster	M. 2	...	Dr. Cavafy	W. 2	...
ORTHOPÆDIC SURGERY ...	Mr. Walsham	F. 12½	...	...	...	...	Mr. Bennett	W. 2½	...
	[*Diseases of Larynx:* Mr. Butlin, Th. 2½]						[*Dis. Throat:* Dr. Whipham]	Th. 2	...
Fee for all Lectures and Hosp. Med. and Surg. Practice ...	... ...		131 5	...	...	†	...	...	£195 0

* Included in Practical Surgery fee.

† £94 10s. in one sum, or £105 in five instalments.

TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1887-88—(CONTINUED.)

LECTURES, &c.	GUY'S HOSPITAL.			KING'S COLLEGE AND HOSPITAL.		
	LECTURERS.	DAYS & HOURS.	FEES. One Course.	LECTURERS.	DAYS & HOURS.	FEES. One Course.
WINTER SESSION.			£ s.			£ s.
PHYSIOLOGY	Mr. Golding-Bird Dr. Wooldridge	M. W. 1.45, S. 9½ Tu. Th. 10	7 7	Dr. Gerald Yeo	Daily, 12½	8 8
ANATOMY, DESCRIPTIVE & SURGICAL	Mr. Howse Mr. Davies-Colley	Tu. W. Th. F. 9	7 7	Dr. Curnow	W.Th.11½, F.S.9* M. Tu. W. Th. 9†	9 9
ANATOMICAL DEMONSTRATIONS	Mr. Lane, Mr. Poland, & Mr. Dunn	Daily, 9 to 4	7 7	Dr. Curnow	Daily	7 7
CHEMISTRY	Dr. Debus Dr. Stevenson Mr. Groves	Tu. Th. S. 11	7 7	Mr. A. S. Kenny Mr. Bloxam Mr. Thomson Mr. Johnson	M. W. Th. 10½	8 8
MEDICINE	Dr. Pye Smith Dr. Taylor	M. W. F. 3	7 7	Dr. Beale	M. F. 4, W. 5	8 8
SURGERY	Mr. Bryant Mr. A. E. Durham	Tu. Th. 3; F. 1½	7 7	Mr. H. Smith	Tu. W. Th. 4	8 8
PRACTICAL SURGERY	Mr. Lucas	M. W. F. 4	4 4	Messrs. H. Smith, Rose, Cheyne, & Barrow	...	3 3
HOSPITAL PRACTICE:	Sir W. Gull, Drs. Owen Rees & Wilks (*consult.*)	...	3 mths. 10 10	Dr. Beale, Dr. Duffin Dr. Playfair (*sec.*) Dr. Barney Yeo	Tu. F. 2; W. S. 2 Tu. Th. S. 2 Tu. F. 1½	6 mths.
PHYSICIANS	Drs. Pavy, Pye-Smith, Taylor, & Goodhart Dr. Hicks (*cons. obst.*) Dr. Galabin (*obst.*)	M. Th. S. M. Th. S. M. W. F. M. Th. F.	6 mths. 15 15	Dr. Hayes (*accou.*) Dr Ferrier,‡ Dr Curnow	M. W. F. 12½ M. Th. 1½	
ASSISTANT-PHYSICIANS	Drs. Hale White, Pitt, Wooldridge, & Perry Horrocks (*obst.*)	M. Tu. W. F. Out-patnts. at 12 Th. S. 12	1 year 24 3 Perpet.	Dr. Tirard Dr. Dalton	Tu. F. 1½ W. S. 1½	
SURGEONS	Messrs. Cock, Birkett (*cons.*), Bryant, Durham, Howse, & Davies-Colley Mr. Bader (*consult.oph.*)	M. Th. S. M. Th. M. Th. W. S. M. T.	3 mths. 10 10	Mr. Wood Sir Joseph Lister, Bart. Mr. H. Smith Mr. W. Rose Mr. S. H. Cartwright (*surg.-dentist*) Mr. McHardy (*ophthalmic*)	Tu. Th. S. 1½ M. W. F. 1½ M. W. F. 1½ Tu. F. 1½ Tu. F. 10 M. W. Th. 1½	6 mths.
ASSISTANT-SURGEONS	Mr Higgens, Mr Brailey (*oph.*); Mr. Moon (*dent.*) Mr Pedley (*assist. dent.*) Mr. L. Purves (*aural*) Mr. Lucas Mr. Golding-Bird Mr. Jacobson Mr. Symonds	Tu. F. Tu. Th. F. Tu. F. W. Th. M. S. (Out-patients at 12)	6 mths. 15 15 1 year 24 3 Perpet. 36 15	Mr. Cheyne Mr. Barrow	W. S. 1 M. Th. 1½	...
CLINICAL MEDICINE	Drs. Pavy, Pye-Smith, Taylor, & Goodhart	S. 1½	...	Dr. Duffin Dr. Beale Dr. B. Yeo Dr. Ferrier Dr. Curnow	Alt. F. 3 Alt. Tu. 3 Alt. Tu. 3‡ Alt. M. 3 Alt. M. 3‡	...
	In Summer: Drs. Hale White, Pitt, Wooldridge, & Perry	W. 1½	...			
	Messrs. Bryant, Durham, Howse, & Davies-Colley	W. 1½	...	...	...	...
CLINICAL SURGERY	*In Summer:* Mr. Lucas Mr. Golding-Bird Mr. Jacobson Mr. Symonds	F. 1½	...	Mr. Wood Sir Joseph Lister, Bart.	Tu. Th. 1½ M. W. 2	To Med. & Surg. Practice £42 per. £18 18s. 1 year.
CLINICAL MIDWIFERY	Dr. Galabin Dr. Horrocks	W. 1½ Operations Tu. F. at 1½	...	Dr. Playfair	Alt. Th. 3 Operations W. 2, F. 2 S. at 1	...
	[*Surgical Classes:* Mr. Jacobson]	On the Eye, M. F. 1½				
SUMMER SESSION.						
MATERIA MEDICA & THERAPEUTICS MIDWIFERY &c.	Dr. Hale White Dr. Galabin	M. Tu. Th. 2 Tu. W. Th. F. 9 A.M.	5 5 7 7	Dr. Tirard Dr. Playfair	Tu. W. Th. F. 8½ Tu. W. Th. F. 9	5 5 5 5
BOTANY	...	...	...	Mr. Bentley	M. Tu. Th. F. 12½	4 4
BIOLOGY	Mr. Beddard	Tu. Th. 2, F. 4½	7 7	...	...	...
MEDICAL JURISPRUDENCE	Dr. Stevenson	Tu. Th. S. 10	5 5	Dr. Ferrier	M. Tu. W. Th. 4	5 5
DISEASES OF WOMEN	Dr. Galabin	M. 3	...	Dr. Playfair	...	...
PRACTICAL CHEMISTRY	Mr. Groves	M. W. F. 10 to 1	7 7	Messrs. C. L. Bloxam, Thomson, & H. Jackson	M. W. Th. 10½	6 6
PRACTICAL PHYSIOLOGY	Dr. Wooldridge	Tu. Th. 10,	...	Dr. G. Yeo & Mr. Herroun	Tu. F. S. 10½	6 6
PRACTICAL BIOLOGY	...	...	...	Mr. Martin	Tu. F. 2	8 8
NATURAL PHILOSOPHY	Mr. Reinold	M. W. 12	5 5	Mr. W. G. Adams	Tu. 2	...
COMPARATIVE ANATOMY	...	...	...	Mr. F. J. Bell (in Winter)	M. F. 4	4 4
PATHOLOGY AND MORBID ANATOMY	Drs. Goodhart, Pitt, Perry, Mr. Targett	Daily, 2½ (in Sum., S. 9)	7 7 3 3	Dr. Duffin	W. Th. F. 3	3 3
OPERATIVE SURGERY	Mr. Lucas	...	5 5	Mr. W. Rose	...	6 6
MORBID HISTOLOGY	Mr. Symonds	W. S. 1	5 5	...	...	...
OPHTHALMIC SURGERY	Mr. Higgens	Th. 3	...	Mr. McHardy	M. Th. 1	3 3
PSYCHOLOGICAL MEDICINE	Dr. Savage	Tu. 11, F. 10½	3 3	Dr. Sheppard	...	...
DENTAL SURGERY	Mr. Moon	Th. 12	...	Mr. S. H. Cartwright	Tu. F. 10	...
AURAL SURGERY	Mr. L. Purves	Tu. 12	...	Dr. Pritchard	Th. 2½	...
DEMONST. OF CUTANEOUS DISEASES	Dr. Perry	Tu. 1	...	Dr. Duffin	F. 3	...
VACCINATION	...	...	...	Mr. Dunn	M. 10½	...
HYGIENE	Mr. Turner	M. F. 11½	3 3	Dr. Kelly (in Wint.)	F. 3	1 1
PRACTICAL PHARMACY	Mr. Collier	...	3 3	Mr. Wilmot	Daily	3 3
				[*Clinical Therapeutics:* Dr B. Yeo, Th. 3, in Win.]	[*Pract. Pathol.:* Mr. Cheyne]	
FEE for Lectures, and Hospital Medical and Surgical Practice	...	...	£131 5	...	...	126 11 6

* Elementary Course. † Advanced Course. ‡ In summer.

TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1887-88—(CONTINUED.)

LECTURES, &c.	LONDON HOSPITAL.			ST. MARY'S HOSPITAL.			MIDDLESEX HOSPITAL.		
	LECTURERS.	DAYS AND HOURS.	FEES. One Session.	LECTURERS.	DAYS AND HOURS.	FEES. One Session.	LECTURERS.	DAYS AND HOURS.	FEES. One Session.
WINTER SESSION.			£ s.			£ s.			£ s.
PHYSIOLOGY	Mr. M'Carthy	M. W. 9 Tu. Th. S. 9	4 4	Dr. Waller	M. W. Th. 12	7 0	Mr. Lowne	M. W. F. 9	8 8
EXPERIMENTAL PHYSIOL.	Mr. M'Carthy	Daily	...	Dr. Waller	Tu. W. F. 10	4 4	Messrs. Lowne & Karop (in Summer)	M. W. F. 9	5 5
PATHOL. & MORBID ANAT.	Dr. Sutton	Daily	...	Mr. Silcock Dr. Maguire	Tu. F. 12	4 0	Dr. Fowler (in Summer)	Tu. Th. S. 9	4 4
ANATOMY, DESCRIPTIVE & SURGICAL.	Mr. F. Treves	Tu. Th. 9 M. W. F. 9	5 5	Mr. Edm. Owen	M. Tu. Th. F. 9	8 0	Mr. Hensman	M. Tu. Th. F. 4	10 10
ANATOMICAL DEMONSTRATIONS.	[*Pract. Anat.*: Mr. C. M. Moullin]	Daily, 10 to 5 (except S. aft.)	5 5	Mr. F. Lane Mr. Hill	Daily 9-5	...	Messrs. Hensman, Sutton, Brodie, Lawson	Daily 9 till 4	6 6
CHEMISTRY	Dr. Tidy	M. W. F. 10.30	7 7	Dr. Wright	W. S. 9 Th. 10	6 0	Mr. W. Foster	M. W. Th. F. 3	6 6
MEDICINE	Dr. Stephen Mackenzie	M. W. F. 4	5 5	Dr. Broadbent Dr. Cheadle	M. W. F.	8 0	Dr. Cayley	Tu. Th. S. 9	8 8
SURGERY	Mr. Rivington	Tu. Th. 4 S. 10 A.M.	5 5	Mr. Norton Mr. Page	M. Tu. Th. 4	8 0	Mr. H. Morris	M. W. Th. 3	8 8
PRACTICAL SURGERY	Mr. Reeves	Tu. Th. in summer)	...	Mr. Pepper	T. Th. 5	4 4	Mr. A. Clark	W. F. 9	6 6
HOSPITAL PRACTICE: PHYSICIANS	Drs. Down, H. Jackson, Sutton, Fenwick, Herman (*obst.*), Mackenzie, Sansom, Turner, Smith, Warner, Ralfe	Daily, 2 Daily, 2 Tu. F. 2	6 mths. 10 10	Dr. Broadbent Dr. Cheadle Dr. Lees Dr. Hicks (*obs.*) *To Out-patients:* Dr. Phillips Dr. Maguire Dr. Pearce	Tu. F. 1½ M. Th. 1½ W. 1½, S. 9½ Tu. F. 9½ W. S. 1½ M. Th. 1½ Tu. F. 1½	6 mths. 5 5	Dr. W. Cayley Dr. Coupland Dr. D. Powell Dr. Finlay Dr. Edis (*obst.*) Dr. Liveing (*skin*)	Daily, 1½ Daily, 1½ Tu. F. 1½ Tu. 4	3 mths. 5 5
ASSISTANT-PHYSICIANS	Dr. Anderson	Daily, 1.30	...	Dr. M. Handfield Jones (*obs.*)	M. Th. 1½	...	Dr. Fowler Dr. Biss Dr. Pringle Dr. Duncan (*obst.*)	Tu 3½, F 3½ M. Th. 1½ W. S. 1½ W. S. 1	...
SURGEONS	Mr. Couper Mr. Rivington Mr. W. Tay (*Oph.*) Mr. M'Carthy Mr. F. Treves Dr. Woakes & Mr. F. M. Hovell (*Aur.*) Mr. Barrett (*Dent.*)	Daily, 2 W. S. 9 S. 9.30 Tu. 9	6 mths. 10 10 10 10	Mr. Norton Mr. Owen Mr. Page *To Out patients:* Mr. Pye Mr. Pepper Mr. Silcock Mr. Norton (*throat dis.*)	M. Th. 1½ Tu. F. 1½ W. S. 1½ M. Th. 1½ W. S. 1½ Tu. F. 1½ M. Th. 9½	6 mths. 5 5	Mr. Hulke Mr. G. Lawson Mr. Morris Mr. S. Bennett (*dental*) Mr. Lang (*oph.*) Mr. Heiseman (*aural*)	M. Th. 1½ M. Th. 1½ Tu. F. 1½ M. 9½, W. 9 Tu. F. 10 Tu. 9	3 mths. 5 5 ...
ASSISTANT-SURGEONS	Mr. Reeves Mr. C. Mansell Moullin Mr. Hurry Fenwick Mr. Eve (*Ophthal.*)	Daily, 1½	...	Mr. Critchett & Mr. Juler (*ophth.*) Mr. Field (*aur.*) Mr. Morris (*skin*) Mr. Hayward (*dental*)	Tu. F. 9½ W. S. 9½ M. Th. 9½ W. S. 1½	...	Mr. Andrew Clark Mr. Pearce Gould Mr. W. Hern (*assist. dental*) Mr. J. B. Sutton [*Pract. Med.*: Dr. Coupland]	M. Th. 1.15 Tu. F. 1.30 W. 9, F. 9½ W. S. 9 M. W. F. 10	... 6 6
CLINICAL MEDICINE	The Physicians and Asst.-Phys.	Twice week 2	...	Dr. Broadbent Dr. Cheadle Dr. Lees	Twice week	...	The Physicians	F. 3	...
CLINICAL SURGERY	The Surgeons and Asst.-Surg.	Twice week 2	...	Mr. Norton Mr. Owen Mr. Page	Twice week	...	The Surgeons	Tu. 3	...
SUMMER SESSION.	[*Exp. Phys.*: Mr. Page, Th. S. dur. Jan. Feb. Mar. 10½]	Operations, M. T. W. Th. & F. 2			Operations W. 1½ P.M. ex. at 2 daily		Superintend. of P.-M. exam.: Mr. Hudson	Operations W. S. at 1 P.M. at 2 daily	
MATERIA MEDICA	Dr. James	Tu. Th. F. 3	3 3	Dr. Lees	T. Th. F. 10	4 0	Dr. Thorowgood	M. W. F. 4	2 2
THERAPEUTICS	...	...	...	...	...	...	Dr. Powell	M. Th. 3	
MIDWIFERY, &c.	Dr. Herman	M. W. F. 9	4 4	Dr. Braxton Hicks Dr. M. H. Jones	Tu. W. Th. F. 9	5 0	Dr. A. W. Edis	M. W. F. 9	5 5
BOTANY	Dr. Warner	M. W. F. 12	3 3	Rev. J. M. Crombie	M. W. F. 11	3 0	Dr. Biss	Th. 10	2 2
MEDICAL JURISPRUDENCE	Dr. Sansom	M. Th. 3.30	3 3	Mr. Luff	M. T. Th. 10	4 0	Dr. Finlay	Tu. Th. S. 10	4 4
TOXICOLOGY	Dr. Tidy	W. F. 10	...	...	...	...	...	...	...
PRACTICAL CHEMISTRY	Mr. Pago	M. W. S. 9.10½ (M. W. 12, 2 in winter)	5 5	Dr. C. R. A. Wright	W. F. S. 9	4 0	Mr. W. Foster [*Psycho. Med.*: Dr. Mickle]	M. W. F. 3 F. 10.15	3 3
COMPARATIVE ANATOMY	Mr. C. M. Moullin	Tu. Th. 9	3 3	Mr. Poulton	M. W. 10	3 0	Mr. J. B. Sutton	Tu. Th. 4	2 2
PATHOL. HISTOLOGY	Mr. Eve	Tu. F. 12.45	...	...	...	...	...	...	...
PATHOLOGY AND MORBID ANATOMY.	Dr. Sutton	Th. 12½, S. 10	3 3	Mr. Silcock Dr. Maguire	...	2 2	Dr. Fowler	Tu. Th. S. 9	4 4
OPERATIVE SURGERY	Mr. Rivington	...	3 3	Mr. Pepper	Tu. Th. 5	...	Mr. A. Clark	...	...
PRACTICAL PHYSIOLOGY	Mr. M'Carthy	...	3 3	Dr. Waller	Daily	...	Messrs. Lowne & Karop	M. W. F. 9	4 4
HISTOLOGY AND THE MICROSCOPE.	Mr. M'Carthy (& in Winter)	Tu. Th. 9.15	3 3	...	Tu. W. F. 10	...	...	...	...
OPHTHALMIC SURGERY	Mr. Waren Tay	Tu. F. 4	2 2	Mr. Critchett	Th. 2½	2 12	Mr. Lang	F. 10	2 2
ANÆSTHETICS	Dr. Hewitt	W. S.	...	...	...	...	...	...	...
AURAL SURGERY	Dr. Woakes	Tu. 4	2 2	Mr. Field	F. 3	2 12	Mr. Hensman	Tu. 9	...
DENTAL SURGERY	Mr. Barrett	Tu. F. 4	2 2	Mr. Hayward (in Winter)	...	2 12	Mr. Storer Bennett (in Winter)	Daily, 9.30	...
DISEASES OF THE SKIN	Dr. Stephen Mackenzie	Th. 9	...	Mr. Morris (in Summer)	Th. 3	2 12	Dr. R. Liveing	F. 4	...
DISEASES OF THE THROAT	Mr. Mark Hovell	W. 4	2 2	...	...	...	Mr. Hensman	Tu. 9	...
PRACT. PHARM. & DISPENS.	Mr. Robertson	...	...	...	...	3 3	Mr. Fardon [*Pub. Health*: Dr. Finlay]	...	3 3
FEE for all the Lectures required by the Colleges and Hall	...	...	...	...	...	...	...	...	...
FEE for ditto, and Hospital Medical and Surgical Practice	£105, in three instalments, or £94 10 in one sum.			...	...	120 0	...	...	£100 0

* Med. Tutor, Dr. Phillips; Surg. do., Mr. Pye; Obst. do., Dr. H. Jones—throughout year thrice weekly.

TABULAR LIST OF THE CLASSES, LECTURERS, FEES, AND DAYS OF OPERATIONS AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1887-88—(CONTINUED.)

LECTURES, &c.	ST. THOMAS'S HOSPITAL AND SCHOOL.		UNIVERSITY COLLEGE AND HOSPITAL.			WESTMINSTER HOSPITAL.		
	LECTURERS.	DAYS AND HOURS.	LECTURERS.	DAYS AND HOURS.	FEES. One Course.	LECTURERS.	DAYS AND HOURS.	FEES. One Course.
WINTER SESSION.					£ s.			£ s.
ANATOMY AND PHYSIOLOGY ...	Dr. Sherrington	M. W. F. 9½ T. W. F. 4	*Professor E. A. Schafer	Daily, 10 (ex. S.)	3, 4, 5 & 7 gs.	Dr Heneage Gibbes	M. W. F. 1.30	6 6
PRACTICAL PHYSIOLOGY AND HISTOLOGY	Dr. T. C. Charles (in Summer)	M. Tu. W. F. 2	*Professor E. A. Schafer	Daily (ex. F. & S.) 12	...	Dr Heneage Gibbes and in Summer	Th. 1.30 M. W. F. 1.30	7 7 5 5
PHYS. DEMONSTRATIONS	Mr. Copeman.	M. F. 10½ T. Th. 12	Dr. Halliburton	...	...	...	...	...
ANATOMY, DESCRIPTIVE AND SURGICAL	Mr. Reid	M. 11, T. 9½	Prof. Thane	Daily, 12	12 12	Mr. Black	Tu. W. Th. F. S. 9	6 6
ANATOMICAL DEMONSTRATIONS	Mr. Anderson Mr. Reid, Mr. Anderson, Dr. Taylor, & Mr. Makins	S. 9½ & 11 Daily, 10½ to 4½ S. 10½ to 1	Mr. P. Flemming Mr. E. H. Thane	...	...	Mr. Hebbert [*Morbid Histology:* Dr Heneage Gibbes, Tu. Th. 11, £5 5s. in Summer]	Daily, 10 to 1	5 5
PATHOLOGICAL ANATOMY... ...	Dr. Payne & Dr. Sharkey	S. 11½ M. 4, W. F. 9*	Prof. Horsley (*Pract. Path.*)	M. & Th. 4-6	2 2	...	...	...
CHEMISTRY	Dr. A. J. Bernays	T. Th. F. 10½	Drs. Ramsay and Plimpton	Daily, (ex. S.) 11	7 7	Dr. Dupré and Dr. Wilson Hake	W. Th. F. 3	6 6
MEDICINE	Dr. Bristowe Dr. Ord	M. Th. F. 4	Prof. H. C. Bastian	Daily, (ex. M. & S.) 9	9 9	Dr. Sturges Dr. Allchin	M. W. Th. 3	6 6
SURGERY	Mr. S. Jones Sir W. Mac Cormac	M. Th. F. 9	Prof. Marcus Beck	M. & S. 9, W. 8	7 7	Mr. Cowell Mr. Macnamara	Tu. Th. 4 F. 3	6 6
GENERAL PATHOLOGY	...	...	[*Chem. Physics:* Prof. Foster]	...	...	Dr. Allchin	...	...
NATURAL PHILOSOPHY...	Dr. Stone (*with Physics*)	S. 12		W. Th. 10	1 11	Dr. Ogilvie	...	3 3
HOSPITAL PRACTICE:			Drs. Walshe, Reynolds, Hewitt, Hare	Daily,	12			
PHYSICIANS	Dr. Bristowe Dr. Stone Dr. Ord Dr. Harley Dr. Payne Dr. Gervis (*obst.*)	Daily, Winter & Summer, 2	Sir W. Jenner, Drs. Ringer, Bastian, Roberts, Gowers, Poore, Barlow, Williams (*obst.*), & Crocker (*Skin*)	1 & 2 Each twice weekly Twice weekly	15 15	Drs. Sturges Allchin, Donkin, Potter (*obst.*), Fox (*Skin*) [*Neur. & Alienism:* Dr. Mercier, F. 4 £2 2s.]	M. Th. 1½ Tu. F. 1½ W. S. 1½ Tu. F. 3 W. 1½	12 mths. 15 15
ASSISTANT-PHYSICIANS	Drs. Sharkey, Gulliver, Hadden, and Acland Cory (*obst.*)	Daily, 1½	Drs. Money and Spencer (*obst.*)	...	...	Dr. Hall Dr. Bennett Dr. Murrell Dr. Grigg (*Obst.*)	M. Th. 1½ Tu. F. 1½ W. S. 1½ Tu. F. 9	...
	Semon (*Throat*)	T. F. 1½	Messrs. Quain, Erichsen, Jones,			Dr. Hall (*Throat*)	W. 9	
SURGEONS	Mr. S. Jones Mr. Croft Sir Wm. Mac Cormac Mr. MacKellar Mr. Nettleship (*ophthal.*)	Daily, 2	Ibbotson, and Sir H. Thompson, Profs. Marshall, B. Hill, & C. Heath Mr. Hutchinson (*dent.*) Prof. M. Beck Mr. A. E. Barker Mr. R. J. Godlee & Prof. J. Tweedy	Daily, 1 & 2 Thrice weekly	...	Mr. Cowell Mr. Davy Mr. Macnamara Dr. Walker (*dent.*) Mr. M. Smale (*dent.*) [*Ophth. Prac.:* Mr. Cowell] [*Orthopædic:* Mr. Davy] [*Aural:* Mr. Black]	M. Th. 1½ Tu. F. 1½ W. S. 1½ W. 9½ S. 9½ M. Th. 3 F. 2½	12 mths. 15 15
ASSISTANT-SURGEONS	Messrs. Clutton, Anderson, Pitts & Makins	Daily, 1½	Mr. Victor Horsley Mr. Bilton Pollard	...	...	Messrs. Cooke, Bond, Stonham, & Spencer	M. Th. 1½ Tu. F. 1½ W. S. 1½	...
CLINICAL MEDICINE	The Physicians	After visits	The Physicians	Fortntly. & twice a week	...	Dr. Sturges Dr. Allchin Dr. Donkin	M. Th. 1½ Weekly	...
CLINICAL SURGERY...	The Surgeons in rotation Mr. Croft	After visits M. 9,* T. 9	By the Surgeons	Once a week and Fortntly.	...	Mr. Cowell Mr. Davy Mr. Macnamara		...
CLINICAL MIDWIFERY, &c.... ...	Dr. Gervis [*Vac.:* Dr. Cory, W. 11½]	Tu. 4 Operations, W. S. 1½ *oph.* T. 4, F. 2	Dr. Williams Dr. H. Spencer	Fortntly. Operations, W. at 2	...	Dr. Potter [*Path. Dem.:* Dr. Hebb, weekly] [*Minor Surg. & Bandaging* in Summer]	Altern. F. 3 Post-mortem exam. 2 Operations, Tu. W. at 2	...
SUMMER SESSION.								
MATERIA MEDICA, &c.	Dr. Stone and Mr. Plowman	M. W. F. 12 noon	Prof. Roberts	M. 9, Tu. W. Th. F. 10.	6 6	Dr. Murrell	Tu. Th. S. 9	3 3
MIDWIFERY, &c....	Dr. Gervis	M. Tu. Th. F. 4	Prof. Williams	Daily, (ex. M.) 9	6 6	Dr. Potter	Tu. W. Th. F. 4	4 4
BOTANY	Mr. A. W. Bennett	Tu. W. S. 10	Prof. Oliver	Daily, (ex. S.) 8	3 13	Mr. Worsley Benison	...	4 4
MEDICAL JURISPRUDENCE... ...	Mr. Clutton, Drs. Bernays & Cory	Tu. Th. S. 9	Prof. G. V. Poore	Tu. W. Th. F. 10	5 5	Dr. Hall Dr. Dupré (*Tox.*)	Tu. W. F. 3	3 3
PRACTICAL CHEMISTRY	Dr. Bernays	M. Th. F. 10 to 12	Dr. Ramsay	Daily, (ex. M. S.) 11	5 5	Dr. Wilson Hake	M. W. F. 10 to 12	4 4
STATE MEDICINE	Dr. E. Seaton	W. 10½	Prof. Corfield	...	...	...	...	...
MENTAL DISEASES	Dr. Rayner	F. 12	Dr. Mickle	W. 3	2 2	Dr. Sutherland	...	...
HYGIENE AND PUBLIC HEALTH	...	...	Prof. Corfield	Tu. Th. 4	3 3	...	...	...
CLINICAL MEDICINE	The Physicians	After visits	As in Winter	...	...	As in Winter	...	...
COMPARATIVE ANATOMY	Dr. Gulliver (with Zoology)	M. Th. 9	†Prof. Lankester	T. W. Th. F. 1	6 6	Dr. L. Ogilvie	...	3 3
PATHOLOGY & MORB. ANATOMY	Dr. Sharkey Dr. Hadden	Daily, 2	Prof. Horsley	M. S. 10, Th. 4	6 6	Dr. Allchin (in Summer)	M. W. Th. 4	3 3
OPHTHALMIC SURGERY	Mr. Nettleship Mr. Lawford	Tu. F. 5	†Prof. J. Tweedy	M. W. 4	2 2	Mr. Cowell	M. 2½	...
DENTAL SURGERY	Mr. Truman	...	Mr. S. J. Hutchinson	...	...	Dr. Walker	W. 9½	2 2
PRACTICAL SURGERY	Messrs. MacKellar, Clutton, & Pitts	F. 9	†Mr. Bilton Pollard †Mr. R. J. Godlee †Mr. Barker	M. Th. 4	6 6	Mr. Davy	F. 12½	4 4
OPERATIVE SURGERY	Mr. MacKellar, Mr. Clutton	...	Mr. R. J. Godlee	...	5 5	Mr. Davy	...	4 4
PRACTICAL PHARMACY...	Mr. Plowman	...	Mr. Gerrard	...	3 3	Mr. Tanner	...	3 3
FEE for Lectures and Hospital Practice	...	125 Guineas.		...	131 5	In 1 sum, £100. No extras ex. dissectns. & exp. physics.	In 2, £105.	In 3, £135.

* In Summer. † In Winter.

TABULAR LIST OF THE CLASSES, LECTURERS, ETC., AND FEES, AT THE PROVINCIAL SCHOOLS OF MEDICINE, FOR THE SESSION 1887–88.

LECTURES, &c.	BIRMINGHAM QUEEN'S COLLEGE.			BRISTOL MEDICAL SCHOOL.			CAMBRIDGE UNIVERSITY.			LEEDS SCHOOL OF MEDICINE.		
	LECTURERS.	DAYS AND HOURS.	FEES. One Course.	LECTURERS.	DAYS AND HOURS.	FEES. One Course.	LECTURERS.	DAYS AND HOURS.	FEES.	LECTURERS.	DAYS AND HOURS.	FEES.
WINTER SESSION.			£ s.			£ s.			£ s.			£ s.
ANATOMY AND PHYSIOLOGY	Mr. J. Berry Haycraft*	M. T. W. Th. F. 11	6 6	Mr. G. M. Smith Dr. Clarke	M. Tu. W. Th. F. S. 10	5 5	Prof. Macalister Prof. Foster	Tu. Th. S. 1 and 9		Prof. Birch and Dr. Barrs	M. T. W. Th. F. 9½	5 5
ANATOMY, DESCRIPTIVE & SURGICAL	Dr. B. C. A. Windle	M. Tu. Th. F. 12	6 6	Mr. Harsant	M. Tu. W. Th. F. S. 9	5 5	Prof. Macalister	M. W. F. 12	...	Prof. Griffith and Mr. Robinson	Daily	5 5
ANATOMICAL DEMONSTRATIONS	Messrs. Jordan Lloyd, Haslam, & Foxwell Mr. Haycraft	Daily	5 5	Mr. Penny	...	...	Prof. Macalister Dr. Hill	Daily, 9–5	...	Dr. Oliver	...	...
PRACTICAL PHYSIOLOGY	...	...	...	...	...	...	Prof. Foster (and in Summer) Prof. Liveing	T. Th. S. 12	...	Prof. Birch and Dr. Barrs	...	6 6
CHEMISTRY	Dr. W. A. Tilden*	Daily (ex. S.) 9½	5 5	Mr. Coomber	Tu. Th. S. 8	3 3	Prof. Paget, Dr. Macalister	M. F. 12	...	Prof. Smithells	M. Tu. Th. F. 4	5 5
MEDICINE	Drs. Foster & Sawyer	Tu. W. F. 3	6 6	Drs. Spencer & Skerritt	M. W. F. 9	5 5	Prof. Latham	M. W. alt. F. 10	...	Prof. Eddison and Dr. Churton	M. W. F. 1	6 6
THERAPEUTICS	...	...	...	...	...	...	Prof. Humphry	T. Th. S. 12	...	Dr. Hellier	...	...
SURGERY	Mr. Pemberton Mr. F. Jordan	Tu. W. F. 4	6 6	Mr. Dobson	Tu. Th. S. 9 A.M.	5 5	Dr. Anningson	W. 1	...	Prof. McGill Mr. Robson	W. F. 3	6 6
HYGIENE	...	...	...	Dr. Davies	M. F. 10 A.M.	2 2				...	...	...
HOSPITAL PRACTICE:				Bristol Roy. Infirmary, and Bristol General Hospital. (*See Additional Information on Schools.*)	Daily, 11½ to 3	...	Addenbrooke's Hospital. Prof. Latham Dr. Bradbury Dr. Macalister Prof. Humphry Mr. Carver Mr. Wallis Mr. Wherry	Daily	Perpet. 12 12	Leeds General Infirmary.	...	...
Physicians	General Hospital and Queen's Hospital.	...	31 10		...	...				Dr. Eddison Dr. Churton Messrs. Jessop, Atkinson, McGill, & Robson	...	...
Surgeons	(*See Additional Information on Schools.*)	...	...					Daily				
SUMMER SESSION.												
MATERIA MEDICA, &c.	Dr. Richards Dr. C. W. Suckling	Tu. W. Th. 12	4 4	Dr. Shaw	Tu. Th. S. 9 A.M.	3 3	Prof. Latham (and *Pharmacy*) Dr. Ingle	M. W. F. 9 M. T. Th. S.		Dr. J. B. Hellier	T. F. 9	4 4
MIDWIFERY, &c.	Mr. Clay and Dr. Bassett	Tu. W. Th. F. 1	5 5	Dr. Swayne and Dr. Lawrence	Daily (ex. S.) 9 A.M.	4 4				Mr. Wright [*Gynæcology:* Dr. J. Braithwaite]	M. W. F. 11½	5 5
PRACTICAL SURGERY OPERATIVE SURGERY	... Mr. Bartleet Mr. B. May	... ...	... ...	Mr. Prichard Mr. Keall	Tu. Th. S. 9 Tu. W. F. 10 A.M.	3 3 3 3	Mr. Wherry	Daily		Mr. Robson	...	...
BOTANY	Mr. W. Hillhouse*	M. W. F. 3	4 4	Mr. Leipner	Tu. Th. S. 10 A.M.	3 3	Mr. Vines	M. W. F. 1		Prof. Miall	M. W. F. 2	4 4
MEDICAL JURISPRUDENCE	Mr. Wilders Dr. A. B. Hill	M. T. 1 F. 12	4 4	Dr. Eager Dr. Harrison	M. Th. S. 10 A.M.	3 3	Dr. Anningson	T. Th. S.		Mr. Scattergood [*Hygiene:* Mr. Hartley]	M. Tu. Th. F. 12½	5 5
MENTAL DISEASES	Mr. Whitcombe	...	...	...	...	...	Dr. Rogers Prof. Liveing	Daily		Mr. Lewis Prof. Smithells	W. 3 Tu. Th. 10	... 4 4
PRACTICAL CHEMISTRY	Dr. W. A. Tilden*	T. Th. 2–4	4 4	Mr. Coomber	M. W. F. 9 A.M.	3 3	Prof. Foster	...		...	...	...
PRACTICAL PHYSIOLOGY & HISTOL.	Mr. J. B. Haycraft*	M. W. F.	4 4	Mr. G. F. Atchley	M. W. F. 8	4 4				Prof. Miall	...	...
COMPARATIVE ANATOMY	Mr. Bridge	...	...	Prof. Morgan	Tu. W. F. 10 A.M.	4 4	† Prof. Newton (Wint. Mr. Sedgwick)	M. Tu. F. 1		Dr. Jacob	...	3 3
PATHOLOGY AND MORBID ANATOMY	Mr. Barling	...	...	Dr. Smith Dr. Baron	M. W. F. 9 A.M. Tu. Th. S. 8½	3 3 4 4	Prof. Roy	M. Tu. Th. F. 9		...	...	...
PRACTICAL HISTOLOGY	Mr. Haycraft	...	...	...	...	...	Dr. Hill	S. 12		...	...	...
DENTAL SURGERY	Mr. Sims	...	3 3	...	...	...	Dr. Cunningham	M. W. F.		...	...	...
DENTAL ANATOMY & PHYSIOLOGY	Mr. Humphreys	...	...	...	...	...	Dr. Cunningham	...		...	...	...
DENTAL METALLURGY	Dr. W. A. Tilden	...	...	...	...	...	...	...		...	...	...
DENTAL MECHANICS	Mr. Elliott	...	...	...	Weekly	...	The Physicians	Daily		Physicians of the Infirmary	Tu.	...
CLINICAL MEDICINE	The Physicians of the two Hospitals.	...	...	...	Ditto	...	The Surgeons	Daily		Surgeons of the Infirmary	...	...
CLINICAL SURGERY	The Surgeons of the two Hospitals.	...	...	...						...	...	£63 0
Fees for all the Lectures required by the College and Hall	[*Hon. Curat. Mus. & Hon. Sec.:* Dr. Windle]	...	£63 0	...	...	£63 0 or £33 10	...	...		...	...	£42 0
Composition Fee for Hospital Medical and Surgical Practice	...	...	£42 0	...	...	£36 15	...	...				

The fee for each course of lectures or demonstrations is one or two guineas per term.

* Held in Mason Science College.

† With Zoology.

TABULAR LIST OF THE CLASSES, LECTURERS, ETC., AND FEES, AT THE PROVINCIAL SCHOOLS OF MEDICINE, FOR THE SESSION 1887-88.

LECTURES, &c.	UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.			UNIVERSITY COLLEGE, LIVERPOOL.			OWENS COLLEGE (VICTORIA UNIV.) SCHOOL OF MEDICINE.			SHEFFIELD SCHOOL OF MEDICINE.		
	LECTURERS.	DAYS AND HOURS.	FEES. One Course.	LECTURERS.	DAYS AND HOURS.	FEES.	LECTURERS.	DAYS AND HOURS.	FEES. One Course.	LECTURERS.	DAYS AND HOURS.	FEES. One Course.
WINTER SESSION.			£ s.			£ s.			£ s.			£ s.
PHYSIOLOGY	Mr. Williamson Dr. Oliver	M. W. F. 10½	5 5	Dr. Caton	Tu. Th. F. 8. 9½	5 5	Prof. Wm. Stirling§ (*with Histology*)	M. Tu. W. Th. F. 11½	5 5	Dr. Sinclair White Dr. Porter	W. 12½ F. 4	3 3
PRACTICAL PHYSIOLOGY	Dr. Oliver (in *Summer*)	Tu. W. Th. 9	5 5	Mr. Larkin (Demonstrator)	M. W. 2, F. 9½	...	Prof. Stirling, Dr. Stewart, Mr. Kant	Daily, 10 to 5	...	Mr. Frank Harrison	...	3 3
ANATOMY, DESCRIPTIVE & SURGICAL	Dr. Mears	Daily, 9½	5 5	Mr. Banks	Daily, 11	5 5	Prof. A. H. Young	Daily (ex.S.)	5 5	Mr. E. Skinner	M. W. F. 6	4 4
ANATOMICAL DEMONSTRATIONS	Dr. Mears	M. Tu. Th. F. 12 Daily, from 10 to 5	5 5	Dr. Ross	...	3 3	Dr. A. M. Paterson	...	1 1	Mr. Chas. Atkin	Tu. Th. 5	2 2
CHEMISTRY	Prof. Bedson	M. W. F. 9½	5 5	Dr. Brown	M. Tu. Th. F. 3	5 5	Mr. Robinson Prof. Dixon	Tu. Th. S. 9½	3 10	Messrs. Atkin, Kilham, & Dr. S. Roberts	Daily	2 2
MEDICINE	Prof. Philipson	M. W. F. 5	5 5	Dr. Glynn	Tu. Th. S. 9½	5 5	Prof. Schorlemmer Prof. Morgan	M. Tu. Th. 3	5 5	At Firth College	M. W. F. 11½	4 4
SURGERY	Dr. Heath Dr. Arnison	M. W. F. 6	5 5	Mr. Parker	M. W. Th. 3	5 5	Dr. Ross Prof. Lund	... M. W. F.	... 5 5	Drs. Bartolomé, Thomas, & Dyson	M. W. F. 5	4 4
PRACTICAL SURGERY	...	...	...	...	M. Th. 4	4 4	Mr. F. Southam Mr. Jones (*with Operat. Surg.*)	Tu. 12	2 2	Mr. A. Jackson Mr. R. J. Pye-Smith	M. W. F. 8 A.M.	4 4
PATHOLOGY	Dr. Drummond (in Summer)	M. W. F. 4	...	Dr. Davidson	Tu. F. 4	3 3	Prof. Dreschfeld Mr Young, *Surg. Path.*	M. 2, Tu. Th. 1 Tu 2	4 4	Mr. Coombe, Mr. H. Lockwood	...	...
EXPERIMENTAL PHYSICS	Mr. H. Stroud	Tu. Th. 10	...	Dr. Lodge	4 times wkly.	4 4	Prof. Stewart	M. W. F.	3 10	...	...	...
PUBLIC HEALTH	Mr. Armstrong	T. 3	5 5	Dr. Hope	...	1 1	Dr. Ransome (*in Summer*)	Tu. F. 2	2 2	SHEFFIELD GEN. INFIRMARY.	...	...
HOSPITAL PRACTICE:	NEWCASTLE INFIRMARY.			LIVERPOOL ROYAL INF.			ROYAL INFIRMARY.			Dr. Bartolomé		
PHYSICIANS	Drs. Philipson, Drummond, Oliver & Limont	Each twice weekly, 11	6 months 8 8 12 month	Dr. Waters Dr. Glynn Dr. Davidson	12 to 2½	6 mon. 6 6 12 mon. 7 7	The Physicians	Daily, 8½ to 12	Composition fee, full period, £42	Dr. Law Dr. Dyson	T. Th. S. 11 M. W. S. 11	Perpet. £15 15; £21 12 mths' pres. £10 10 6 months, £8 8s.
SURGEONS	Dr. Arnison Dr. Armstrong Dr. Hume Mr. Page	Each twice weekly, 10	£12 12 Comp. †£26 5	Mr. Bickersteth Mr. Harrison Mr. Banks	12 to 2½	6 mon. 7 7	The Surgeons	...		Messrs. Favell, A. Jackson, & Shaw	M. W. Th. S. 11½	
ASSISTANT-SURGEONS	Mr. T. A. Dodd Mr. Williamson	Once weekly, 11	...	Mr. Parker	...	12 mon. 10 0	...	...		PUB. HOSP. & DISP. *Phys.*: Drs. Thomas, Porter, & S. Roberts *Surgs.*: Dr. Keeling Mr. Thorpe, & Mr. Pye-Smith		
SUMMER SESSION.				[*Dental Anat. & Phys.*: Mr. Paul, £3 3s.—*Dental Metallurgy*: Mr. Royston, £3 3s.]			[*Mental Diseases*: Mr. Mould]	Tu. Th. 4	1 11 6	[*Medical Tutor*: Mr. Lee]		
MATERIA MEDICA	Mr. McBean	M. W. 4, F. 5	5 5	Dr. Carter	Tu. Th. F. 8. 9 A.M.	4 4	Prof. Leech	M. T. W. Th. 1	4 4	Dr. Young	M. W. F. 8 A.M.	3 3
MIDWIFERY, &c.	Dr. Nesham Dr. Gibson*	Daily, 9 A.M.	5 5	Dr. Wallace‡ Dr Gee (*child. dis.*)	M. W. F. 8. 9½ M. W. F. 11	5 5 2 2	Prof. Callingworth Dr. Ashby (*Dis. Chil.*)	M. T. Th. F. 1 W. F. 3	4 4 2 2	Dr. Keeling, Messrs. R. Favell & Laver	M. W. F. 8 P.M.	3 3
BOTANY	Dr. Murphy	Tu. Th. F. 4	5 5	Dr. Shearer	T. W. Th. F. 3	4 4	Prof. Williamson	Daily (ex.S.) 3½	2 12 6	Mr. Birks	Tu. Th. 8	3 3
MEDICAL JURISPRUDENCE	Mr. Page	M. Th. 8	5 5	Mr. Paul	M. W. F. 3	4 4	Dr. Dixon Mann	M. W. Th. 2	4 4	Mr. J. W. Harrison	Tu. Th. 5	3 3
PRACTICAL CHEMISTRY	Prof. Bedson	M. W. F. 10–1	5 5	Dr. Brown	M. T. Th. F. 10	4 4	Prof. Dixon	M. W. 10½	4 4	At Firth College	M. W. F. 11	3 3
COMPARATIVE ANATOMY	Prof. Brady	T. F. 4½	5 5	Dr. Herdman	4 times wkly.	3 3	Dr. A. M. Marshall‡ (*with Embryology*)	M. W. F. 10½	2 12 6	...	...	...
PATHOLOGY & MORBID ANATOMY	Dr. Drummond	M. W. F. 4	5 5	Dr. Barron (*Path. Histol.*)	Twice wkly.	1 1	Prof. Dreschfeld	M. 4, W. 1	2 2	Mr. Coombe Mr. Lockwood	...	3 3
OPHTHALMIC SURGERY	Mr. Williamson	M. 12	...	Mr. Browne‡	W. 4	1 1	Dr. Little	W. F. 4	3 3	Mr. Snell	W. 12½	...
DENTAL SURGERY & MECHANICS	Mr. Fothergill	Tu. F. 4	...	Mr. Phillips	...	3 3	Vacant	M. F. 4½	3 3	...	...	...
OPERATIVE SURGERY	Dr. Armstrong	7 A.M. & 3½ P.M.	5 5	Mr. Connell Mr. Parker	... Thrice wkly.	3 3 4 4	Mr. Jones	M. 4	4 4	...	...	3 3
CLINICAL MEDICINE	Phys. and Surg. of Infirmary	...	...	Phys. and Surg. of Roy. Infir.	...	...	Physicians and Surgeons of Royal Infirmary	...	...	Phys. & Surg. of Gen. Infirm. & Pub. Hosp. & Dispensary	Tu. 5 Th. 5	...
CLINICAL SURGERY		...	...		...	...	[Comp. fee, Dental course, £50]	...	...		...	...
FEE for all Lectures required by the College and Hall	...	...	£63 0	...	...	£63 0	...	...	£63	...	...	£45
Ditto for Hospital Medical & Surgical Practice	...	...	†£26 5	...	...	£12 0	...	...	£42	...	...	£18 18s.

* Diseases of Women and Children. † In addition to the above, £3 3s. yearly up to three years. ‡ In Winter. § Physiological Laboratory, Prof. Wm. Stirling, daily, 8½ to 5.

TABULAR LIST OF THE CLASSES, LECTURERS ETC., AND FEES, AT THE MEDICAL SCHOOLS OF SCOTLAND, FOR THE SESSION 1887-88.

TABULAR LIST OF THE CLASSES, LECTURERS ETC., AND FEES, AT THE MEDICAL SCHOOLS OF SCOTLAND, FOR THE SESSION 1887–88.

LECTURES, &c.	ABERDEEN UNIV.		EDINBURGH UNIV.		SCHOOL OF MEDICINE, EDINBURGH.		GLASGOW UNIV.		GLAS. ROY. INFIRM. SCHOOL OF MEDICINE.		GLASGOW, ANDERSON'S COLL., MED. SCHOOL.		GLASGOW WESTERN MEDICAL SCHOOL.	
	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. —	LECTURERS.	FEES. First Course.	PROFESSORS.	FEES. One Course.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.
WINTER SESSION.		£ s.		£ s.		£ s.		£ s.		£ s.		£ s.		£ s. d.
ANATOMY (DEMONSTRS., &c.)	Dr. Struthers, 9, 11	5 5	Sir William Turner	4 4	Messrs. Symington & M. Brown, 9 to 6	7 9	Dr. J. Cleland, 11, 2	6 6	Mr. Clark, 4	4 4	Dr. A. M. Buchanan, jun. 4, sen. 12½	4 4	Mr. J. T. Carter, 11	4 4 0
CHEMISTRY (PRACTICAL, &c.)	Prof. Brazier, 3	3 3	Dr. Crum Brown, 10 (Adv. Class in Sum.)	4 4	Dr. S. Macadam, Messrs King, Macadam, & Drinkwater, 10	3 5	Dr. J. Ferguson, 10	3 3	Dr. Milne, 10	2 2	Dr. Dittmar, 10	2 2	...	...
	[*Pract. Hyg.*: Dr. Matthew Hay]								[*Dis. of Throat*: Dr. Newman, 3, in Summer]					
PHYSIOLOGY (INST. OF MED.)	Dr. MacWilliam, 2	3 3	Dr. Rutherford, 11	4 4	Dr. James & Mr. J. Hunter, 11	3 5	Dr. McKendrick, 12	3 3	Dr. Barlow, 3	2 2	Dr. Christie, 3	2 2	...	...
GENERAL PATHOLOGY, &c.	Dr. Hamilton, 9	3 3	Dr. Greenfield, 3	4 4	Dr. Alex. Bruce, 9	3 5	3 o'clock	3 3	Dr. Newman, 10‡	3 3	(In Infirmary)	...	...	...
MEDICINE	Dr. Smith-Shand, 3	3 3	Dr. Grainger Stewart, 9	4 4	Drs. Wyllie, Affleck, Bramwell, & Brown	3 5	Dr. Gairdner, 11	3 3	Dr. Anderson, 12	2 2	Dr. Gemmell, 5	2 2	Dr. McVail, 11	2 2 0
SURGERY	Dr. Alex. Ogston 10	3 3	Dr. Chiene, 10	4 4	Mr. Miller, Dr. MacGillivray, Mr. Cathcart, & Mr. F. M. Caird, 10	3 5	Sir G. H. B. Macleod, 1	3 3	Dr. Macewen, 11	2 2	Dr. Dunlop, 11	2 2	Mr. Knox, 12	2 2 0
									[*Public Health*: Dr. Glaister, in Summer]					
MATERIA MEDICA, &c. ...	Dr. Cash, 4	3 3	Dr. T. R. Fraser, 2	4 4	Drs. Crail & Gibson, 2	3 5	Dr. Charteris, 12	3 3	Dr. Dougall, 1	2 2	Dr. Morton, 4	2 2	...	...
MIDWIFERY, &c.	Dr. Stephenson, 4	3 3	Dr. Simpson, 10 (Dis. Wom. & Child.)	4 4	Drs. Bell, Young, & Miss Murray, 11	3 5	Dr. Leishman, 3	3 3	Dr. Stirton, 3	2 2	Dr. A. Wallace, 1 (In Summer)	2 2	Dr. Reid, 12	2 2 0
MED. JURISPRUDENCE, &c.	Dr. Hay, 9 (in Summer)	3 3	Sir D. Maclagan, 11 (in Summer only)	4 4	Dr. Littlejohn, 2	3 5	Dr. Simpson,‡ 11	3 3	Dr. Glaister, 11 (in Summer)	2 2	Vacant, 1‡ (In Summer)	2 2	...	...
NATURAL HISTORY ...	Dr. Nicholson, 2	3 3	Dr. Ewart, 2	4 4	Mr. J. A. Thomson	...	Dr. Young, 9	3 3	...	...	...	...	...	...
NATURAL PHILOSOPHY ...	...	...	Mr. Tait, 11	3 3	...	...	Sir Wm. Thomson	4 4	...	...	Prof. Blyth	...	...	...
HOSPITAL PRACTICE:	ABERDEEN R. INF.		EDIN. ROYAL INF.		EDIN. ROYAL INF.		GLASGOW ROY. INF AND WEST INF., 9		...	...	GLASGOW ROY. INF.	...	...	...
PHYSICIANS	Drs. Smith-Shand, A. Fraser, and Blackie Smith Daily [*Assist.-Phys.*: Dr. Rodger]	One year, £3 10s. Perpetual, £5.	...	Perpet. ticket, £12 12s.	D. s. Muirhead, Brakenridge, Wyllie, Affleck, & Haniday Crum, 12	1 year, £5 5s.	The Physicians and Surgeons of the Infirmaries (and in Summer)	1st year, £10 10s.; 2nd year & perpetual, £10 10s.	Dr. Robertson Dr. Perry Dr. Wood Smith Dr. W. Anderson	Perpetual, including Clin. Lectures, £21	Drs. J. W. Anderson Gemmell, Robertson, & A. W. Smith, 9 *Out-patients*: Dr. Dougall	1st year, £10 10s.; 2nd, £10 10s.; afterwards free; 6 months, £6 6s.: 3 months, £4 4s.	The Physicians & Surgeons in the Western Infirmary.	...
SURGEONS	Drs. Ogston, Ogilvie, Will, & Garden, Williamson (*dental*) Daily		...		Mr. Duncan, 12	1 year, £5 5s.	9 o'clock		Dr. Dunlop Dr. Macewen Mr. Clark Dr. Knox Dr. Fleming		Drs. Knox, Dunlop, Macewen, Clark, Lothian, & Fleming, 9 *Out-patients*: Drs. Barlow and Adams		...	...
ASSISTANT-SURGEONS ...	Dr. McKenzie Booth	...	...	...	...	...	...		...	...	...		...	...
CLINICAL MEDICINE	Drs. Smith-Shand, A. Fraser, and McKenzie Booth	3 3	Drs. G. Stewart, Fraser, & Greenfield, & Dr. Simpson, for Dis. of Women, Tu. F. 12 to 2	4 4	Drs. Muirhead, Brakenridge, Wyllie, Affleck, & Halliday Crum Tu. F. 12 ‡	3 5	Drs. McCall Anderson & Gairdner, 9 (and in Summer)		The Physicians	...	The Physicians, 9	...	...	...
CLINICAL SURGERY	Drs. Ogston, Ogilvie, Will, and Garden	3 3	Dr. Annandale, M. Th. 12	4 4	Mr. Duncan, M. Th. 12 ‡	3 5	Dr. Buchanan & Sir G. H. B. Macleod, 9 (and in Summer)	...	[*Dent. Surg.*: Dr. Woodburn, 3] The Surgeons	5 0 ...	The Surgeons, 9	...	...	...
SUMMER SESSION.														
PRAC. ANAT. & DEMONS. ...	Dr. Struthers, 9 to 4	2 2	Sir Wm. Turner, 1, 4	3 3	Messrs. Symington & M. Brown, 9 to 4	2 2	Dr. Cleland and Demonstrators, 11	2 2	Mr. Clark, 12	1 11 6	Dr. Buchanan, 11½	2 2	Mr. J. T. Carter, 2	1 11 6
BOTANY	Dr. Trail, 8	3 3	Dr. Dickson, 8	4 4	Mr. A. N. McAlister	...	Mr. Bower, 8	3 3	...	...	Mr. Wilson, 3	1 11 6	...	...
HISTOLOGY	Dr. Struthers and Dr. MacWilliam	...	...	2 2	Dr. James & Mr. J. Hunter	...	Dr. McKendrick, 12	3 3	Dr. Barlow, 1	...	Dr. Christie, 1	2 2	...	...
COMPARATIVE ANATOMY...	...	...	...	...	Dr. A. Wilson	...	Dr. Young, 12	3 3	...	...	...	...	...	...
PRACTICAL CHEMISTRY ...	Mr. Brazier, 10	3 3	Dr. Crum Brown, 10, 11	3 3	(As in Winter)	3 3	Dr. J. Ferguson, 10	3 3	Dr. Milne, 10½	2 2	Dr. Dittmar, 2½	2 2	...	...
DISEASES OF THE EAR ...	Dr. McKenzie Booth	1 1	...	...	Dr. Duncanson & A. P. McBride	3 3	[*Pract. Mat. Med.*: Dr. Charteris, 12]	3 3	Dr. Macfie, 4	1 1	Dr. Barr, 3	Free	Mr. J. Walker Downie, S. 10	1 1 0
DISEASES OF THE EYE ...	Dr. Davidson	1 1	Dr. A. Robertson, 9	3 3	Roberts n & Berry	...	Dr. T. Reid, 2	1 1	Mr. Clark, Tu. F. 4	...	Dr. Wolfe, 12	Free	...	...
DISEASES OF CHILDREN ...	Dr. Stephenson	...	Drs. Andrew & Carmichael	1 1	Underhill, Playfair	...	...	...	...	...	(With Midwifery)	...	...	...
NATURAL HISTORY	Dr. Nicholson, 2	3 3	Dr. Ewart, 2 [michael*	4 4	Wilson & Thomson	3 5	...	...	...	...	...	...	...	...
MED. PSYCHOL. & INSANITY	Dr. Reid	1 1	Dr. Clouston,† M W F	3 3	Dr. J. Take, 2	2 2	Dr. Yellowlees	2 2	Dr. Robertson, 12	1 1	(With Jurisprud.)	...	...	...
GYNÆCOLOGY	Dr. Stephenson, 11 (In Winter)	2 2	Dr. Simpson, 11	4 4	...	...	Dr. Leishman	2 2	Dr. Stirton	...	(With Midwifery)	...	Dr. Reid, 12	2 2 0
MIDWIFERY, &c.	...	...	[*Pr. M. Anat. & Path.*] Dr. Greenfield, 11]	4 4	Drs. Crichton, Macdonald, Bell, Young	3 5	...	...	Dr. Stirton, 3	2 2	Dr. A. Wallace, 1	2 2	...	...
											Ph.H.: Dr. Christie, 4	Free		
OPERATIVE SURGERY... ...	Dr. Alex. Ogston, 10	2 2	Dr. Chiene, 8	3 3	... §	...	Sir G. H. B. Macleod, 1	2 2	Dr. Macewen, 12	2 2	Dr. Dunlop, 11	2 2	Mr. Knox, 12	2 2 0

* Also in Winter. † With Prac. Instruction at an Asylum (Mon. Wed. Fri.), £3 3s. ‡ In Summer. § Mr. A. G. Miller, Dr. MacGillivray, Mr. C. W. Cathcart, and Mr. F. M. Caird.

TABULAR LIST OF THE CLASSES, LECTURERS ETC., AND FEES, AT THE MEDICAL SCHOOLS OF IRELAND, FOR THE SESSION 1887-88.

LECTURES, &c.	DUBLIN UNIVERSITY.	DUBLIN R.C. OF SURGEONS.		LEDWICH SCHOOL OF SURG. & MED.	DUBLIN, CARMICHAEL COLL.		DUBLIN, CATHOLIC UNIVERSITY.			BELFAST, QUEEN'S COLLEGE.			CORK, QUEEN'S COLLEGE.			GALWAY, QUEEN'S COLL.	
	LECTURERS.	LECTURERS. DAYS AND HOURS.	FEES.	LECTURERS.	LECTURERS. DAYS AND HOURS	FEES.	LECTURERS.	DAYS & HOURS.	FEES.	LECTURERS.	DAYS & HOURS.	FEES. First Course.	LECTURERS.	DAYS & HOURS.	FEES. First Course.	LECTURERS. DAYS AND HOURS.	FEES. First Course.
												£ s.			£ s.		£ s.
ANATOMY AND PHYSIOLOGY	Dr. Cunningham (*chirurgery*)	Dr. Mapother M. W. F. 3		Mr. T. Mason Mr. M. A. Ward	Dr. J. A. Scott* daily (ex. S.) 2		Dr. Nixon Dr. Coppinger	Daily (ex.S.)12		Dr. P. Redfern	Daily (ex. S.) 2	3 0	Dr. J. J. Charles	Daily 1	3 0	Dr. Pye daily (ex.S.)3	3 0
ANATOMY, DESCRIPTIVE & SURGICAL	...	Profs. Stoker & Fraser		Dr. T. P. Mason and Mr. Ledwich	Dr. Houston, daily, 1		Dr. R. Cryan Dr. Hayden	Daily (ex. S.) 1		Dr. P. Redfern	...	...	Dr. J. J. Charles	Daily (ex.S.)12	...	Dr. Pye daily (ex.S.) 1	...
PRACTICAL ANATOMY AND DISSECTIONS	Dr. Cunningham Dr. Little	...		...	Dr. Houston, daily Drs. Doyle, McVittie, Broomfield, Lentaigne, Beatty, Gunn, McHugh, Falkiner, & Burges.		Dr. Redmond Dr. M'Cullagh Dr. M'Ardle Dr. Chance Dr. O'Carroll	7 to 7 daily		Dr. Sinclair	Daily (ex. S.) 12	3 0	Dr. Charles and Demonstrators	Daily, 12	3 0	Dr. Pye (and Demonstrators) Daily, 9 to 4	3 0
CHEMISTRY	Dr. Reynolds	Prof. Sir C. Cameron		Mr. E. Lapper	Dr. Tichborne Tu. Th. S. 3		Dr. Campbell	M. W. F., 11, 12		Dr. Letts	Daily (ex. S.) 3	2 0	Dr. Maxwell Simpson	M. W. F.	2 0	Dr. Rowney M. W. F. 12	3 0
PRACTICAL CHEMISTRY ...	Dr. Reynolds			Mr. E. Lapper	Dr. Falkiner† M. W. F. 12		†Dr. Campbell	M. T. W. F., 11, 1		Dr. Letts (*in Summer*)	Daily (ex.S.) 12	3 0	Dr. Maxwell Simpson	M. W. F.	3 0	Dr. Rowney Tu. Th. S. 2	3 0
MATERIA MEDICA AND PHARMACY	Dr. W. G. Smith	Mr. Macnamara		Mr. R. D. Purefoy	Dr. Duffey† Tu. Th. S. 1.30		†Dr. Quinlan	M. Tu. W. Th. 1		Dr. J. S. Reid	M.Tu.W. Th. 4	2 0	Dr. C. Y. Pearson	Tu. Th. S. 12	2 0	Dr. Colahan M. W. F. 2	2 0
BOTANY AND ZOOLOGY ...	Dr. Wright Prof. Mackintosh	Dr. Minchin		Mr. Robinson	Dr. Cosgrave† M. W. F. 11		†Dr. Sigerson	Th. 2 F.S. 1		‡Dr. R. O. Cunningham	*Zoology* M T W F] *(Botany)* M. Tu. W. Th. F. 11	3 0	Professor Hartop	M. W. 3 S. 12	2 0	Dr. W. King Tu. Th. S. 11	2 0
INSTITUTES OF MEDICINE AND PATHOLOGY	Dr. Purser	...		Mr. T. Mason	[*Practical Histology:* Dr. J. A. Scott†] Dr. Beatty (*in Sum.*)		Dr. Lyons	S. 3		...	...	...	...	...	...	Dr. Lynham *Exp. Physics*	...
NATURAL PHILOSOPHY ...	Prof. FitzGerald	...		Mr. Lapper			†Rev. G. Molloy	Tu. Th. 1 S. 2		Dr. J. Everett (*in Winter*)	M. T. W. T 7 11 & 1	2 0	Mr. J. England	Tu. Th. 2	2 0	Prof. Larmor Tu. Th. 12	2 0
HOSPITAL PRACTICE	Sir P. Dun's OR OTHER DUBLIN HOSPITAL.	...		VARIOUS DUBLIN HOSPITALS.	HOUSE OF INDUST., ADELAIDE, MEATH JERVIS-ST., CITY OF DUBLIN, CORK-STREET (FEVER).		...	...		BELF. ROY., ULSTER., UN., AND OTHER HOSPITALS.	...	...	NORTH AND SOUTH INFIRMARIES.	...	...	GALWAY INFIRMARY & TOWN HOSP.	Sess 4 4
CLINICAL LECTURES	...	...		...	...		...	...		...	...	...	...	...	...	Daily Drs. Browne, Pye, Colahan & Lynham T. F. 10	...
SURGERY	Dr. E. H. Bennett	Profs. Sir W. Stokes and Hamilton		Mr. Nixon Mr. Stoker	[*Ophthal. Surg:*] Dr. Fitzgerald, W. 1 Mr. Corley Tu. Th. S. 12		Mr. J. P. Hayes	M. W. F. 3		Vacant	M.Tu.W. Th. 1	2 0	Dr. S. O'Sullivan.	Tu. Th. S. 4	2 0	Dr. J. V. Browne M. W. F. 11	2 0
MIDWIFERY, &c.	Dr. Kirkpatrick	Dr. Roe Tu. Th. S. 3		Mr. S. R. Mason	Dr. Jennings Dr. Macan M. W. F. 3		Dr. Byrne	Tu. Th. S. 2		Dr. Dill	M. Tu. W. Th. 3	2 0	Dr. Corby	Tu. Th. S. 4	2 0	Dr. Kinkead M. W. F. 2	2 0
MEDICINE	Dr. Finny	Dr. Foot M. W. F. 11		Dr. Knight Mr. Redmond	Dr. Moore M. W. F. 12		Dr. R. D. Lyons	Tu. Th. S. 3		Dr. Cuming	M. Tu. W. Th. 4	2 0	Dr. D. C. O'Connor	M. W. 12 S. 12	2 0	Dr. Lynham Tu. Th. S. 2	2 0
MEDICAL JURISPRUDENCE	Dr. Travers	Dr. Davy		Mr. R. Travers	Mr. Auchinleck (*in Summer*) M. W. F. 1		†Dr. Macswiney	M. T. W. Th. 12		Dr. Hodges (*in Summer*)	M. Tu. W. Th. 2	2 0	Dr. C. Yelverton Pearson	M. W. S. 3	...	Dr. Rowney Dr. Kinkead Tu. Th. S. 4	2 0
COMPARATIVE ANATOMY...	Prof. Mackintosh	...		...	...		...	...		...	...	...	...	...	2 0	[*Modern Languages:* Dr. Geisler, £3]	...
PRACTICAL PHARMACY ...	...	[*Hygiene:* Pr. I. Sir C. Cameron]		...	...		...	...		...	...	...	...	...	...	Dr. Geisler, £3	...
LOGIC	The College Tutors	[*Ophth. and Aural Surg.:* Prof. Jacob]		...	...		[*Ophthalmology:* Dr. D. D. Redmond]			...	...	...	Professor Stokes	...	1 0	Dr. T. W. Moffett M. W. F. 1	...

Course, £3 3s., in all Classes, ex. Descr. Anat. (£5 5s.), Prac. Chem. (£5 5s.), Oph. & Aur. Surg. & Hygiene, which are free.

For each Course, £3 3s.; except Dissections, £5 5s.; Practical Chemistry and Practical Surgery, £5 5s.

£3 3s. each Course, except Dissections and Pract. Chem., which are £5 5s. each.

* Prac. Phys. in Summer. † In Summer. ‡ Zoology in Winter; Botany in Summer.

METROPOLITAN HOSPITALS AND MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE. — The clinical practice of the hospital comprises a service of 750 beds, of which 676 are in the hospital at Smithfield, and 75 are for convalescent patients at Swanley.

Four house-physicians, ten house-surgeons, and a midwifery assistant are appointed annually, each of them holding office for one year, and provided with rooms by the hospital authorities. The ophthalmic house-surgeon is appointed for six months, and is eligible for re-election for a second term of six months. The senior assistant chloroformist and junior assistant chloroformist are appointed annually, and are provided with rooms. Two qualified assistant electricians are appointed every three months. No fee is paid for any of these appointments, and each receives a salary of £25. The clinical clerks, the obstetric clerks, the clerks to the medical out-patients, the dressers to the surgical out-patients, and the dressers in the special departments are chosen from the diligent students. Forty ward dresserships are given annually to the students who pass the best examination in the subjects of study of the first year. Other ward dresserships may be obtained by payment of the usual fees.

A college is attached to the hospital, in which students can reside, subject to the college regulations.

Foundation and other Prizes. — Open Scholarships in Science of the value of £130 each, tenable for one year, will be competed for in September. Candidates must not be more than twenty-five years of age for one, and twenty-one for the other, and must not have entered to the medical or surgical practice of any metropolitan medical school. The subjects of examination are Physics, Chemistry, Botany, Physiology (not more than four subjects to be taken), and Zoology.—Preliminary Scientific Exhibition (founded 1873). The subjects of examination are identical with those of the Open Scholarship in Science. This exhibition, of the value of £50, is tenable for one year. The examination is confined to students of the hospital of less than six months' standing, and will be held in October.—The Jeaffreson Exhibition, of the value of £20, is awarded after examination in the subjects of General Education. It is now an Open Exhibition.—A Senior Scholarship, £50, in Anatomy, Physiology, and Chemistry.—Kirke's Scholarship, and Gold Medal in Clinical Medicine, value 40 guineas. Lawrence Scholarship, and Gold Medal, of the value of 40 guineas (founded in 1873 by the family of the late Sir William Lawrence).—Two Brackenbury Scholarships in Medicine and Surgery, £30 each.—Junior Scholarships in the subjects of study of the first year: 1st, £50; 2nd, £30; 3rd, £20.

A prize for Anatomy has been founded by the late Mr. Henry Skinner in memory of his brother, and by Miss Shuter in memory of her brother, formerly assistant-surgeon to St. Bartholomew's Hospital.

CHARING-CROSS HOSPITAL AND COLLEGE. — Total fees, £94 10*s.*, if paid in a single sum on entry, or £105 if paid in five instalments. General students pay proportionately lower fees, and are admitted without additional fee to the courses of Clinical Medicine and Surgery, to the new classes of systematic practical instruction in Medicine and Surgery, and to the practice of the Royal Westminster Ophthalmic Hospital. They alone are entitled to compete for the Scholarships, Gold Medal, and Pereira Prize.

Preliminary Science Instruction. — Arrangements have been made for students desirous of undergoing a course of instruction in science, such as that required for the Preliminary Scientific (M.B.) Examination of the University of London, to attend at the Normal School of Science, South Kensington.

Two Entrance Scholarships, of the value of £30 and £20 respectively, tenable for one year, are awarded annually in October, after a competitive examination in the following subjects: — *Compulsory* — English, Latin, Mechanics, and Mathematics; *Optional* (only one of which may be selected)— Chemistry, German or French, the subjects being those of the matriculation examination of the University of London. Candidates must give notice of their intention to compete on or before Monday, September 19th, 1887. Two scholarships are open for competition among general students: the Llewellyn Scholarship of £25, for students who have just completed their attendance on lectures; and the Golding Scholarship of £15, for students who have just completed their first year. The Pereira prize of £5 is open to all general students, and is awarded annually for the best clinical reports. The Governor's Gold Medal is given for excellence in clinical work. Silver or Bronze Medals, or an equivalent in books, are awarded to the most distinguished students in all classes; and special prizes in the classes of Dental Surgery, Practical Surgery, and Practical Histology.

ST. GEORGE'S HOSPITAL.—Perpetual pupils, by payment of £130 in three instalments, or £125 in one sum, are entitled to admission to the medical and surgical practice; to compete for prizes and exhibitions; to hold the appointment of house-physician and house-surgeon, assistant house-physician, assistant house-surgeon, ophthalmic assistant, registrar's assistant, and to become clinical clerks for two periods of three months each, and dressers for similar periods. Gentlemen are admitted to the hospital practice and lectures required by the College of Physicians and Surgeons and the Society of the Apothecaries on payment of £45 at the commencement of the first year of study, £45 at the commencement of the second year of study, £20 for the third, and £15 for each subsequent year of attendance. These payments entitle the pupil to hold the offices of clinical clerk and dresser for three months each, and to become a candidate for the offices of medical and surgical registrar and demonstrator of anatomy and curator of the museum. These are all salaried offices. The obstetric assistant is resident, with a salary of £100.

Entrance Scholarships.—£125, open to sons of medical men; two of £50 each, open to all students commencing their medical studies; £90, open to students who have passed the Cambridge First M.B.; £75, open to students who have been signed up for or passed the Oxford First M.B. or Cambridge Second M.B.

Prizes.—The William Brown Exhibition of £100 per annum, tenable for two years, open to any perpetual pupil of St. George's who is under twenty-five years of age, and who shall have obtained a diploma or licence entitling him to be registered as a practitioner of medicine or surgery in England, within two years previously to the period fixed for the examination (July). The examination is to test the proficiency of the candidate in Medicine, Midwifery, and Surgery, including Ophthalmic Surgery.—The William Brown Exhibition of £40 per annum, tenable for three years, for general fitness for the exercise of the medical profession and for moral conduct, open to perpetual pupils in their fourth year of study.—Sir Charles Clarke's Prize (interest of £200 consols) for good conduct; the Brackenbury Prize in Medicine, value nearly £40; the Brackenbury Prize in Surgery, value nearly £40; the Treasurer's Prize, £10 10*s.*; the Thompson Medal; the Brodie Prize for Clinical Surgery; the Acland Prize for Clinical Medicine; the Pollock Prize in Physiology; the Henry Charles Johnson Prize in Anatomy; and General Proficiency Prizes, value £10 10*s.* each, for students of each year.

GUY'S HOSPITAL. — *Appointments:* House-physicians, house-surgeons, obstetric resident assistants, clinical assistants, surgeons' and assistant-surgeons' dressers, surgical ward clerks, clinical clerks, post-mortem clerks, extern obstetric attendants, and dressers and clerks in the special departments, are appointed from among the students, upon the recommendation of the medical staff, according to merit, and without extra payment. The house-physicians, of whom there are three, hold office for six months each, the first two months as third house-physician, another two months as second house-physician, and the last two months as senior house-physician. The third house-physician attends in the Out-patient Department three afternoons in the week, and sees all the cases not seen by the assistant-physician of the day. The second and senior house-physicians have the care of the patients in the Medical Wards, and attend to all emergencies arising in the absence of the physicians. They are provided with board and lodging in the hospital free of expense. The house-surgeons, of whom there are three, hold office for six months each. During the first two months the house-surgeon has the superintendence of the Surgical Casualty Department; for the next two months he has charge of cases in the Special Wards, and assists in the Out-patient Room; and for the last period, as

senior house-surgeon, he has the care of the patients in the General Surgical Wards, and is responsible for their treatment in the absence of the surgeons. Except for the first two months, he is provided with board and lodging in the hospital free of expense. The surgeons' dressers are selected from those students who have completed their third winter session, and have been most diligent in the junior appointments. They hold office for six months each. Three are attached to each surgeon, and during their weeks of special duty they are provided with board and lodging in the hospital free of expense. The obstetric residents, two in number, are provided with board and lodging in the hospital free of expense.

Scholarships, Prizes, &c.—Entrance Scholarship in Arts £131 5*s*.). Subjects: Latin, Greek, French, German, and Mathematics.—Entrance Scholarship in Science (£131 5*s*.). Subjects: Inorganic Chemistry, Zoology, Botany, Physics. The examination begins on Wednesday, Sept. 28th.—For first-year students: First prize £50, second prize £25, for Anatomy, Physiology, Materia Medica, and Chemistry.—For second-year students: First prize £25, second prize £10, for Anatomy and Physiology. The Sands Cox Scholarship of £15 (tenable for three years) for Physiology. The Michael Harris prize of £10 for Anatomy.—For third-year students: First prize £25, second prize £10, for Medical and Surgical Anatomy, Midwifery, and Therapeutics.—For fourth-year students: First prize £25, second prize £10, for Medicine, Surgery, Midwifery, and Medical Jurisprudence. The Golding Bird prize of £33 for Methods of Diagnosis in Disease.—For senior students: The Treasurer's Gold Medal for Clinical Medicine; the Treasurer's Gold Medal for Clinical Surgery; the Gurney Hoare prize of £25 for Clinical Reports and Commentaries; the Beaney prize of 30 guineas for Pathology; and the Mackenzie Bacon prize of £15 for Nervous Diseases.—The Physical Society awards two prizes, each of £5, to the authors of the best Essays on selected subjects, prizes of £10 and £5 for the best papers read before the Society, and a prize of £5 to the member who has most distinguished himself in the debates of the session.

Fees.—1. A perpetual ticket, including admission to lectures, demonstrations, and hospital practice, competition for prizes, and eligibility for hospital appointments, may be obtained—(*a*) by the payment of 125 guineas on entrance; (*b*) by two payments of £66, one on entrance, the other at the commencement of the ensuing session; (*c*) by the payment of three annual instalments, at the commencement of each academical year: first year, £50; second year, £50; third year, £37 10*s*. 2. A reduction is made in the fees for a perpetual ticket in the case of students who have spent one or more years at another medical school. Students entering as second-year students are charged for their first year at Guy's Hospital, £50; second year, £40; third year, £20; or 95 guineas in one sum on entrance. Students entering as third-year students are charged for their first year at Guy's Hospital, £50; second year, £20; or 65 guineas in one sum on entrance. Students entering as fourth-year students are charged for their first year at Guy's Hospital. £50; second year, £5; or 50 guineas in one sum on entrance.

KING'S COLLEGE.—The physicians' assistants, the physician-accoucheur's assistant, the ophthalmic clinical assistant, the clinical clerks, and the house-surgeons and dressers, are selected by examination from among those matriculated students of the college who are pupils of the hospital. Rooms are provided within the walls of the College for the residence of a limited number of matriculated students. Rooms and commons are provided at the hospital for the resident officers free of charge.

Scholarships.—Warneford Scholarships: Two of £25 per annum for three years for Literature. Science: One of £50 and one of £25 each for two years. Sambrooke: One of £60 and one of £40 for Science. Rabbeth Scholarship of £20 per year for Science. College Scholarships: One of £40 per annum for two years; one of £30 for one year; three of £20 for one year. The Daniell Scholarship, for Chemistry, of the annual value of £20. Sambrooke Registrarships, of the annual value of £50 each, and tenable for two years, are open to all matriculated students who have filled any one of the higher appointments of the hospital, or who have become Associates. The Leathes Prizes, value £7, and the Warneford Prizes, value £40, are given annually amongst the matriculated medical students. Two Medical Clinical Prizes, one of £3 for the winter session, and one of £2 for the summer session, and two Surgical Clinical Prizes, of £3 each, are given. The Todd Medical Clinical Prize consists of a bronze medal and books to the value of £4 4*s*. The Tanner Prize for Obstetric Medicine, value £10, and the Carter Gold Medal and Prize for Botany, value £15, are given annually in July. Class Prizes, value £3 3*s*. each, are awarded annually in every subject. A Warneford Scholarship of £25 per annum for two years for third-year subjects is awarded annually to resident students only.

LONDON HOSPITAL AND COLLEGE.—The Medical School of the London Hospital has lately been entirely remodelled and rebuilt. The present buildings were opened by their Royal Highnesses the Prince and Princess of Wales on May 21st, the accommodation now afforded being more than double that which was provided in the old buildings. The hospital, which is the largest in Great Britain, contains nearly 800 beds. Last year the number of in-patients was 8743, out-patients 80,691, and the number of accidents 11,195.

The following Scholarships and Prizes will be offered for competition during the ensuing winter and summer sessions:—Two Entrance Scholarships in Natural Science, of the value of £60 and £40 respectively, will be offered for competition on September 19th, 20th, and 21st, 1887. The subjects are Physics, Botany, Zoology, and Inorganic Chemistry. The successful candidates must forthwith become full pupils of the hospital and school, if not already entered; and are not eligible to compete for the Buxton Scholarships.—The two Buxton Scholarships, value £30 and £20, will be offered for competition on September 26th, 27th, and 28th, 1887. The subjects are those appointed by the General Council of Medical Education and Registration as the subjects of the Preliminary Examination.—A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, will be competed for at the end of the winter session by first and second year students.—A Scholarship, value £20, in Anatomy and Physiology for first-year students. (At the commencement of the summer session.)—The Letheby Prize, value £30, for Proficiency in Chemistry. (At the end of the summer session.) Open to all full students who have completed their second summer session up to the termination of their fourth year from entrance.—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Medicine. (At the end of the winter session.)—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery. (At the end of the winter session.)—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Obstetrics. (At the end of June.)—The Duckworth Nelson Prize, value £10, will be offered bienially for competition at the end of the winter session, and be open to all students on similar conditions to those of the Hospital Scholarships. The subjects of examination will be Practical Medicine and Surgery.—The Hutchinson Prize, value £35, will be given triennially to the author of the best essay upon a subject in Clinical Surgery. Candidates must be full students of the hospital who have not been registered more than ten years.—Out-patients' Dressers' Prizes. Six prizes, of the aggregate value of £60, will be offered for competition at the end of the winter session. Candidates must pass an examination in Minor Surgery, have dressed diligently for twelve months, and have passed the Primary Examination of the Royal College of Surgeons.—Two Dissection Prizes, value £6 and £4.

Special classes are held throughout the year for the Preliminary Scientific Intermediate M.B. Examinations of the University of London and for the Primary and Pass Examinations for the Fellowship of the Royal College of Surgeons. Special entries can also be made for Medical and Surgical Practice, the Operative Surgery classes, &c.

In addition to the regular courses of lectures, there will be given during the winter and summer sessions a course of Lectures on Clinical Medicine by Sir Andrew Clark, Bart., F.R.S., Emeritus Professor of Clinical Medicine, and courses of lectures on Clinical Surgery by Mr. Jonathan Hutchinson, F.R.S., Emeritus Professor of Clinical Surgery.

During the summer session a course of lectures will be delivered on Pathological Chemistry by Dr. C. H. Ralfe, Physician to the Hospital, on Mondays, at 4 P.M.

ST. MARY'S HOSPITAL.—There are five resident medical officers, four of whom are appointed for twelve months, and one, the obstetric officer, for six months, who board free of expense in the hospital. These appointments are awarded

after competition, without additional fee. Two Demonstrators of Anatomy are appointed annually, with a salary of £70 and £50 respectively; a Demonstrator of Physiology, at £100 a year; and a Demonstrator of Histology, at £50 a year. All these officers are eligible for re-election. There is also a Demonstratorship in Pathological Anatomy, of the value of £15, and tenable for six months; the holder of this scholarship will assist the pathologist in the discharge of duties in the museum and dead-house. Two Prosectors of Anatomy and two Assistant Demonstrators of Physiology are appointed annually, and receive a certificate and £5 each for satisfactory service in their respective departments. All students are required to perform the duties of clinical clerk and dresser during the last two years of their curriculum. Students of the third year and of subsequent years are also appointed as clerks and dressers to assist the physicians and surgeons in charge of the out-patients. In addition to the instruction given in the wards daily, distinct Clinical Lectures are given on Fridays throughout the academical year, at 3.30 P.M. The hospital contains 270 beds, 130 of which are devoted to medical and 140 to surgical cases. Two wards are appropriated to the Diseases of Children, and one to those of Women; beds are also provided for Ophthalmic, Aural, and Cutaneous cases.

Scholarships, Prizes, and Appointments: Scholarships offered for open competition previously to entering at the Medical School.—Entrance Scholarships: The following will be offered for competition on Sept. 30th and Oct. 1st:—One Scholarship in Natural Science, of the value of 100 guineas, open to any gentleman who has not completed a winter session of study at a medical school. Three Scholarships in Natural Science, each of the value of 50 guineas, under the same conditions. One Scholarship of the value of 100 guineas, open to students from Epsom College, being sons of medical men, and who have not completed a winter session of study at a medical school. Two Scholarships, each of 50 guineas, open to students from the Universities of Oxford, Cambridge, or other University, who have not entered at any London medical school.

In addition to the Open Entrance Scholarships, Class Prizes, and usual Appointments, Scholarships will be offered for competition at the end of each year, open to all pupils. These Scholarships are of the value of £20, £25, and £30, for the first, second, and third years respectively.

A residence for students, 33, Westbourne-terrace, W., in connexion with the hospital, is under the charge of a warden, and the Dean is prepared to receive applications from students desiring to enter upon residence during the ensuing session. Terms: 90 guineas for the academical year, to include special instruction by the Demonstrators on three evenings a week.

MIDDLESEX HOSPITAL.—There is a special Cancer Department, affording accommodation for thirty-three in-patients, whose period of residence in the hospital is unlimited. Classes, open to all the students, are held for practical instruction in Medicine, Midwifery, in the microscopical examination of healthy and diseased tissues, and also in the application of bandages and other surgical apparatus. Students are allowed to take out to read at their own homes the books from the large and carefully selected medical library of the school. The museum has recently been rearranged, and a complete catalogue prepared of the various specimens. Two Entrance Scholarships, of the annual value of £50 and £30, and tenable for two years, are offered for competition at the commencement of the winter session. An Exhibition in Elementary Anatomy, Osteology, and Physiology, value £10 10s., is awarded to students at the end of their first year. The Lyell Medal is awarded annually for proficiency in Surgical Anatomy and Practical Surgery. The Hetley Prize is awarded annually for Clinical proficiency. Two Broderip Scholarships, of the annual value of £30 and £20, tenable for two years, are awarded to those students who pass the best examination at the bedside and in the post-mortem room. The Murray Medal and Scholarship, founded in connexion with the University of Aberdeen, is awarded every third year to a student of this hospital; it will be next awarded in May, 1889. The Governors' Prize of 20 guineas is also awarded annually to the student after his third winter session who shall pass the best clinical examination in the out-patient departments. Valuable class prizes are also given, and fourteen resident clinical appointments are annually awarded, after competitive examination, to students who have completed their education and complied with the regulations of the school.

Arrangements have been made for students desirous of undergoing a course of instruction in Science, such as that required for the Preliminary Scientific (M.B.) Examination of the University of London, to attend such a course at the Normal School of Science, South Kensington. Fee for the whole course, £35. Students who enter for this course will be allowed a deduction of £20 on the fees for the medical curriculum.

A *Residential College*, intended to accommodate about thirty students, and adjoining the medical school, has been erected during the present year. The warden assists the students in their studies.

ST. THOMAS'S HOSPITAL.—*Prizes and Appointments for the year 1887-88.*—For First-year students: Two Entrance Scholarships in Natural Science of the value of 125 guineas and £60 respectively, open to all first-year students, will be awarded during the first week in October, after an examination in Physics, Chemistry, and either Botany or Zoology, at the option of the candidate; the William Tite Scholarship, the proceeds of £1000 Consols (£30 per annum), is awarded each year; also prizes of £20 and £10; summer £15 and £10. For Second-year students: The Peacock Scholarship of 40 guineas, and the Musgrove Scholarship of 40 guineas, are awarded biennially to the students who shall take the highest place in the first-class list in the examinations at the end of the second winter session; they are tenable for two years, provided the holder obtains a place in the first class in the subsequent examinations: making the winter prizes £42, £20, and £10; summer, £15 and £10; with the dresserships and the clinical clerkships. For Third-year students (winter): Second Tenure of Scholarship £42, and prizes of £20, £15, and £10; summer, £15 and £10. Clinical clerks and dressers are selected according to merit. The Grainger Testimonial Prize of £15 annually is awarded to students, who shall be from three to six years' standing, for the best Anatomical or Physiological Essay, to be illustrated by preparations and dissections. The Cheselden Medal for Surgery and Surgical Anatomy, and the Mead Medal for Practical Medicine, are awarded annually to fourth-year students. The Solly Medal, with a prize of from 10 to 20 guineas, will be awarded biennially to a student of the third, fourth, fifth, or sixth year, for the best report of Surgical cases. The next award will be made in 1888. The Treasurer's Gold Medal, for general proficiency and good conduct, is awarded annually to a fourth-year student.

Classes in Practical and Operative Surgery are held four times a week for six weeks prior to the final examinations of the Examining Board in January, April, and July. In connexion with these classes, Clinical Instruction is given in the wards by the resident assistant-surgeon, and a course of demonstrations on Museum Specimens is given by the curator, Mr. Shattock.

UNIVERSITY COLLEGE, LONDON.—*Composition Fees.*—1. For the entire medical education required by the Examining Board in England and the Society of Apothecaries, 120 guineas, if paid in one sum at the commencement of the course; 125 guineas, if paid by instalments, as follows—first year, 55 guineas; second year, 50 guineas; third year, 20 guineas. 2. For those Students who do not require to attend Chemistry, Pharmacy, and Materia Medica at a medical school (under the regulations of the Examining Board in England) the fee will be—100 guineas, if paid in one sum; 105 guineas, if paid by instalments, as follows—first year, 50 guineas; second year, 35 guineas; third year, 20 guineas. 3. For the whole course of instruction for the Intermediate Examination in Medicine of the University of London, 50 guineas. 4. For the course of instruction for the Final M.B. Examination of the University of London, 70 guineas, if paid in one sum; 72 guineas, if paid by instalments, as follows—first year, 40 guineas; second year, 32 guineas. 5. Composition fee for Dental Students, 60 guineas. 6. Composition fee for the whole course of instruction for the Preliminary Scientific (M.B.) Examination of the University of London, 35 guineas.

Exhibitions, Prizes, &c.—Three Entrance Exhibitions, of the respective values of £100, £60, and £40 per annum, tenable for one year, are annually awarded, upon examination by printed papers, to gentlemen who are about to commence their first winter attendance in a medical school. The subjects of the examinations are—Chemistry, Physics,

Botany, and Zoology. The next examination will take place at the College on September 29th and 30th. The Atkinson Morley Surgical Scholarship of £45, tenable for three years, is annually awarded to the student who, upon examination, is found to possess the greatest proficiency in the Theory and Practice of Surgery. The Charpey Physiological Scholarship of about £105 per annum, tenable for three years, for proficiency in Biological Science. Filliter Exhibition: a prize of £30 is awarded annually, in July, to the most proficient student in the class of Pathological Anatomy. An Atchison Scholarship, value about £55 per annum, tenable for two years. The Cluff Memorial Prize, value about £15, every second year to the most proficient in Anatomy, Physiology, and Chemistry. The Erichsen Prize: a surgeon's operating case of the value of £10 10s., awarded yearly to the student of the class of Practical Surgery who shall most distinguish himself by manipulative skill. The Morris Bursary of £25 a year, tenable for two years. Besides the above, gold and silver medals and other prizes are awarded in each class.

Residence of Students.—University Hall (Professor Henry Morley, Principal) adjoins the College, and is designed to enable men studying in University College to live in chambers under conditions of fellowship adapted to the needs of modern student life. Full information as to cost and conditions of residence in University Hall may be had by application at the office of the College.

Several professors and other gentlemen connected with the College receive students to reside with them; and in the office of the College there is kept a register of persons unconnected with the College who receive boarders into their families; among these are several medical gentlemen.

WESTMINSTER HOSPITAL.—The hospital contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, and for Diseases of Women, and a special ward for Children. The Anatomical Museum is constantly open to the students. There are also a Pathological Museum and a Materia Medica Museum.

A curator of the Museum and pathologist, with a salary of 50 guineas, and a medical and surgical registrar, are appointed annually, each with a salary of £40. Two house-physicians, two house-surgeons, and a resident obstetric assistant are appointed for six months after examination, and are provided with rooms and commons. The senior house-physician, who is also the chloroformist to the hospital, and the senior house-surgeon, who performs special duties, receive in addition an honorarium of 20 guineas each. Clinical assistants to the physicians and surgeons, and to the officers in charge of special departments, are appointed from among qualified students of the hospital.

Scholarships and Prizes.—The Guthrie and Entrance Scholarship, on alternate years, each £40 a year, and one Entrance Scholarship value £40. Entrance Scholarship, summer session, value £40. The Treasurers' Prize, an exhibition in Anatomy, Physiology, and Chemistry, value £10. 10s., tenable for one year for first-year men. The President's Prize, a Scholarship in Anatomy, Histology, and Physiology, value £21, given by his Grace the Duke of Westminster, President of the Hospital, to a student of the second year (to be styled Assistant Demonstrator). At the end of the fourth winter session, prizes of £5 each (books or instruments) in Clinical Medicine and Clinical Surgery. Frederick Bird Medal and Prize, value £15. Subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth. In most of the classes special prizes, value about 2 guineas each, are given by the lecturers.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian-road. Consulting Surgeon: Frederick Le Gros Clark. Physicians: Drs. Cholmeley, Cook, Burnet, Beale, and Beevor. Obstetric Physicians: Drs. Gustavus C. P. Murray and Fancourt Barnes. Surgeons: Messrs. W. Adams, W. Spencer Watson, J. Macready, C. B. Lockwood, and A. W. Allingham. Ophthalmic Surgeon: Mr. Jonathan Hutchinson, jun. Aural Surgeon: Mr. W. R. H. Stewart. Chloroformist: Dr. J. F. W. Silk. Dental Surgeon: Mr. E. Keen. House-Surgeon: Mr. A. M. Cowie, M.B. House-Physician: Mr. C. Mortlock. Dispenser: Mr. J. F. Dunstan.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Consulting Physicians: Dr. C. J. B. Williams, F.R.S., Dr. W. H. Walshe, Dr. R. Quain, F.R.S., Dr. J. E. Pollock. Consulting Surgeon: Professor John Marshall, F.R.S. Physicians: Drs. E. S. Thompson, C. T. Williams, R. D. Powell, J. Tatham, R. E. Thompson, and F. Roberts. Surgeon: Mr. R. J. Godlee, F.R.C.S. Assistant-Physicians: Drs. T. H. Green, J. M. Bruce, J. Fowler, P. Kidd, C. Y. Biss, and C. T. Acland. Pathologist: Dr. P. Kidd. Dental Surgeon: Mr. C. J. Noble. Resident Medical Officer: Dr. H. D. Waugh. Secretary: Mr. H. Dobbin. Four Clinical Assistants reside in the hospital for a period of six months. Pupils are admitted to the practice of the hospital: terms £3 3s. for three months; six months, £5 5s.; perpetual, £10 10s. Lectures and Clinical Demonstrations are given throughout the year by members of the medical staff. The medical practice of the hospital is recognised by the University of London, the Apothecaries' Society, and the Army and Navy and Indian Medical Boards. The hospital contains 321 beds in the two buildings.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road (established 1814). Consulting Physician: Dr. Horace Dobell. Physicians: Drs. Hensley, Gilbart-Smith, Finlay White, Pringle, and Oswald Browne. Assistant-Physicians: Drs. Arthur Davies, Herbert Habershon, and Edward Stewart. Consulting Surgeon: Mr. Jonathan Hutchinson. Surgeon: Mr. A. Pearce Gould. House-Physicians: Messrs. William J. Best, M.R.C.S., L.S.A., and Percy G. Lewis, M.R.C.S., L.S.A. John J. Austin, Secretary. Attendances: In-patients (1886), 305; out-patients (1886), 29,04s. This hospital has recently been enlarged by the addition of a very complete out-patients' department, and also by the erection of a new wing, which provides accommodation for eighty in-patients.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—The new hospital, with the Finchley branch, contains 180 beds and cots. The physicians attend every Monday, Tuesday, Wednesday, and Friday, at 2.30 P.M. In- and out-patients' practice and electrical-room treatment at that hour. Physicians: Drs. Ramskill, Radcliffe, Hughlings Jackson, and Buzzard. Physicians for out-patients: Drs. H. Charlton Bastian, W. R. Gowers, and D. Ferrier. Assistant-Physicians: Drs. Ormerod and Beevor. Surgeons: Messrs. W. Adams and Victor Horsley. Ophthalmic Surgeons: Messrs. R. Brudenell Carter and Marcus Gunn. Aural Surgeon: Mr. A. E. Cumberbatch. Laryngologist: Dr. Felix Semon. House-Physicians: Messrs. Walter Hull and R. T. Williamson. Medical practitioners and senior students may attend the practice after signing their names in the clerk's office.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.—The hospital, founded in 1804, and considerably enlarged in 1876, now contains 100 beds for patients, which were occupied during last year by 2049 persons. The out-patients are yearly over 20,000; attendances, 123,555 in 1886. Operations are performed daily from 10.30 to 1 o'clock, and three surgeons attend on each day. Students are admitted to the practice. Fees for six months, £3 3s.; perpetual £5 5s. Demonstrations and lectures are given during the winter. Students of the hospital are eligible for the office of house-surgeon, or may be appointed clinical assistants. The secretary, Mr. Robert Newstead, will furnish further information, as may be desired.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.—The hospital contains 50 beds; and the patients, who number 10,000 annually, are seen and operations performed daily at 2 o'clock. The following are the days of attendance of the surgeons: Mr. Power and Mr. Frost, Monday and Friday; Mr. Rouse and Mr. Hartridge, Tuesday and Saturday; Mr. Macnamara, Monday and Thursday; Mr. Cowell, Wednesday and Saturday. The practice of the hospital is open to students. Fees for six months, £3 3s.; perpetual, £5 5s. Students of the hospital are eligible for the post of house-surgeon. Special demonstrations and lectures will be given during the session. Secretary: Mr. T. Beattie-Campbell.

ROYAL ORTHOPÆDIC HOSPITAL, 297, Oxford-street.—Surgeons: Messrs. B. E. Brodhurst, H. A. Reeves, Charles Read, and William E. Balkwill. Assistant-Surgeon: Mr. H. F. Baker. House-Surgeon: Mr. E. H. Norris. Secretary: Mr. Maskell. Operations on Mondays at 2 P.M. The hospital is open to all legally qualified practitioners. Pupils

are admitted to witness the practice of the hospital on the following terms: six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester-square.—Lectures are delivered in winter on Mechanical Dentistry by Dr. J. Walker, on Wednesdays at 5 P.M. In summer, by Mr. Hutchinson, on Dental Surgery and Pathology, on Tuesdays and Fridays at 8 A.M., and by Mr. Arthur Underwood, on Dental Anatomy and Physiology (Human and Comparative), on Wednesdays and Saturdays, at 8 A.M. *Fees:* General fee for special lectures required by the curriculum, £15 15s.; fees for two years' hospital practice required by the curriculum, £15 15s.; total fees for lectures and practice, £31 10s. Hospital Surgeons: Messrs. Canton, Gregson, Hepburn, Storer Bennett, Claude Rogers, and Woodhouse. Assistant-Surgeons: Messrs. Hern, Matheson, Perkinson, Read, Rogers, Truman, and E. Lloyd Williams. Anæsthetists: Messrs. Braine, Bailey, Bird, and Mills. Assistant-Anæsthetists: Drs. Buxton and Hewitt. House-Surgeon: Mr. H. Williams. Assistant House-Surgeons: Messrs. F. Colyer and G. Seymour. Medical Tutor: Mr. W. Paterson. The winter session will commence October 4th. All communications to be addressed to Mr. Morton Smale, Dean.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich, S.E.—This institution is established for the relief of seamen of all nations. Casualties are received at all hours. Apartments are provided in the house of the Principal Medical Officer for students. Honorary Consulting Physicians: Dr. Robert Barnes, F.R.C.P., and Dr. Richard Quain, F.R.C.P. Visiting Physicians: Dr. John Curnow, F.R.C.P., and Dr. Herbert Tyrrell Griffiths, M.R.C.P. Honorary Consulting Surgeon: Mr. J. N. Davies-Colley, F.R.C.S. Visiting Surgeon: Mr. G. Robertson Turner, F.R.C.S. Medical Officer, Well-street Dispensary: Mr. C. E. Cotes, F.R.C.S. Principal Medical Officer: Mr. W. Johnson Smith, F.R.C.S. House-Physician: Dr. E. H. Booth. House-Surgeon: Mr. R. Ritson, M.R.C.S. Secretary: Mr. P. Michelli.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Queen's-square, W.C., and Cromwell House, Highgate.—There are now 121 beds in the hospital, Great Ormond-street, and 52 beds at the country branch; total, 173. In-patients last year, 1144; out-patients, 14,287. The practice at the hospital has recently been thrown open gratuitously to the pupils of the different hospitals and medical schools of London, on conditions which may be ascertained of the Secretary.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL AND MIDWIFERY TRAINING SCHOOL, Marylebone-road, N.W.—Consulting Physicians: Dr. G. O. Rees, Dr. Gream, Dr. Brodie. Consulting Surgeons: Mr. H. Lee, Sir William Mac Cormac. Physicians to In-patients: Dr. Hope and Dr. W. C. Grigg. This hospital, which has been recently enlarged, receives nearly 1000 patients annually, besides having a large out-patient department. Medical pupils are received at all times of the year. Pupils have unusual opportunities of seeing obstetric complications and operative midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical instruction is given on the more important cases which present themselves. Certificates of attendance at this hospital are recognised by all universities, colleges, and licensing bodies. Monthly nurses and midwives are received for training. Fees: Medical students, from £3 3s. for one week, to £26 5s. for three months, exclusive of board and lodging; Pupil Midwives, £26 5s. for three months, and Pupil Nurses, £11 0s. 6d., for eight weeks, both inclusive of board and lodging. For further particulars, application should be made to G. Owen Ryan, Esq., Secretary, at the hospital.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road.—Instituted 1816. Consulting Physicians: Dr. Wilks and Dr. John Williams. Consulting Physician: Dr. Wm. Park. Physicians: Drs. W. A. Duncan, Alex. Haig-Septimus Sunderland, and W. R. Dakin. Surgeon: Mr. H. C. Jacobson. Assistant-Surgeon: Mr. E. Overman Day. Surgeon-Dentist: Mr. W. Whitehouse. Resident Medical Officer: G. W. Moseley. Secretary: Mr. R. G. Kestin. Advanced students in medicine, and such practitioners as may desire it, are permitted to attend the practice of this hospital gratis. If a certificate signifying such attendance be required, the sum of £5 5s. must be paid to the physicians and surgeons in ordinary conjointly.

HOSPITAL FOR WOMEN, Soho-square, W.—Consulting Physician: Dr. Protheroe Smith. Physicians: Drs. Carter, Richard T. Smith, Holland, and Mansell-Moullin. Surgeon: Mr. H. A. Reeves. Assistant-Physicians: Drs. Bedford Fenwick and Oliver. Assistant-Surgeon: Mr. S. Osborne. Pathologist and Registrar: Dr. Norman Dalton. Anæsthetist: Dr. Dudley Buxton. In connexion with this institution there has been for some years a well-organised Clinical Department, which has lately been enlarged under the title of the London School of Gynæcology. To meet the want increasingly felt by medical men of an accurate knowledge of the ordinary diseases of women, ten gentlemen are appointed every three months to act as clinical assistants to the physicians and surgeons seeing out- and in-door patients. The appointments are nominally "open to qualified medical men and to students of medicine after their third year," but in the selection of candidates preference is naturally given to gentlemen already engaged in practice. The large numbers of out-patients afford quite unrivalled opportunities for practical instruction in the use of gynæcological instruments, and for the study of diseases peculiar to women. A course of lectures on the Anatomy and Physiology of the Female Pelvic Organs is given during each quarter by a member of the Staff. Clinical Lectures are given in the Operating Theatre on alternate Thursdays, at 3.30 P.M., throughout the winter and summer sessions. Valuable prizes are given, after examination, annually, open to past and present clinical assistants. Fee for the three months' course, £5 5s. Any further information can be obtained by letter, addressed to the Dean at the hospital.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea, S.W., and Churchfields, Margate.—The hospital contains 60 beds and 12 at the home at Margate, and has a large out-patient department (over 500 weekly). Physicians: Dr. Julian Evans and Dr. Ridge Jones. Physicians to the out-patients: Drs. Albert Venn, T. Colcott Fox, F. D. Drewitt, and Henry Philpot. Surgeons: Messrs. Pick and Clutton. Surgeons to the out-patients: Messrs. Walter Pye and D'Arcy Power. Dental Surgeon: Mr. Francis Fox. House-Surgeon: Cameron Kidd. House-Physician: Alexander Harper. Secretary: Captain W. C. Blount, R.N. Out-patients are seen daily as under:—Medical cases: Monday only at 9A.M.; and every afternoon at 1.30. Surgical cases: Daily, except Wednesday and Saturday, at 9.30 A.M. Dental cases: Saturdays at 9 A.M.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Consulting Physicians: Dr. Robert Barnes and Sir Andrew Clark, Bart., M.D. Consulting Surgeon: Mr. Buxton Shillitoe. Consulting Ophthalmic Surgeon: Mr. George Cowell. Physicians: Dr. Eustace Smith, Dr. Horatio B. Donkin, and Dr. H. Radcliffe Crocker. Surgeons: Mr. Arthur Cæsar and Mr. R. W. Parker. Assistant-Surgeon: Mr. L. A. Dunn. Assistant-Physicians: Dr. J. A. Coutts and Dr. Dawson Williams. Administrator of Anæsthetics: Mr. Thomas Bird. Resident Medical Officer: Mr. J. Scott Battams. Secretary: Ashton Warner. Lady Superintendent: Miss F. A. Davies. Matron: Mrs. Fisher.

WEST LONDON HOSPITAL, Hammersmith-road, W.—This hospital has 110 beds. About 1100 in-patients and 14,000 out-patients, whose attendances number nearly 50,000, are treated annually. There are appointments for a House-Physician and two House-Surgeons, with board and residence, tenable for six months. Also appointments for a limited number of Clinical Assistants. Physicians: Drs. G. Goddard Rogers, D. W. C. Hood, and F. G. D. Drewitt. Physician for Diseases of Women: Dr. Albert Venn. Surgeons: Messrs. C. B. Keetley, F. Swinford Edwards, and W. Bruce Clarke. Surgeon for Diseases of the Eye: Mr. B. J. Vernon. Assistant-Physicians: Drs. W. P. Herringham, J. B. Ball, and Seymour Taylor. Assistant-Physician for Diseases of Women: Dr. J. A. Mansell-Moullin. Assistant-Surgeons: Messrs. C. A. Ballance, H. F. Weiss, and B. Wainwright. Assistant-Surgeon for Diseases of the Eye: Mr. H. P. Dunn. Surgeon-Dentist: Mr. H. L. Albert. Pathologist: Mr. H. P. Dunn. Physician in Charge of Throat Department: Dr. J. B. Ball. Aural Surgeon: Mr. B. Wainwright. Physician to Skin Department: Dr. F. G. D. Drewitt. Surgeon to Skin Department: Mr. H. F. Weiss. Surgeon in Charge of Orthopædic Department: Mr. C. B. Keetley. Administrators of Anæsthetics: Messrs. T. Gunton Alderton and Rickard W. Lloyd. Secretary: Mr. R. J. Gilbert.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Consulting Physician: Dr. W. S. Playfair. Consulting Surgeons: Sir Prescott G. Hewett, Bart., and Mr. W. Morrant Baker. Physicians: Drs. Fred. Taylor, James F. Goodhart, Nestor Tirard, and Fred. Willcocks. Surgeons: Messrs. H. G. Howse, R. Clement Lucas, C. J. Symonds, and G. H. Makins. Ophthalmic Surgeon: Dr. W. A. Brailey. Dental Surgeon: Mr. R. Denison Pedley. House-Surgeon: Dr. Geo. A. Carpenter. Hon. Secretary: Dr. I. Dobree Chepmell.

ALL SAINTS CHILDREN'S HOSPITAL, 4, Margaret-street, and 59, Mortimer-street, W. — Founded by the All Saints Sisterhood in 1882 for Chronic Joint Diseases. Twelve beds for boys and eight for girls under the age of ten years. Surgeon, Mr. Noble Smith.

MR. THOMAS COOKE'S SCHOOL OF ANATOMY, PHYSIOLOGY, SURGERY, &c.—By decision of the Royal Colleges of Physicians and Surgeons, gentlemen rejected at their Anatomical and Physiological Examinations (Primary R.C.S., or Second Conjoint) can get "signed up" from this school for the three or six months' work they are now required to put in before re-examination. This school is intended to meet the requirements of two classes of students: 1. Qualified practitioners and advanced students—i.e., gentlemen wishing either to obtain some of the higher qualifications, or to compete for appointments in Her Majesty's Army, Navy, and Indian Medical Services. 2. Students preparing for the usual Primary and Pass Examinations of any of the licensing bodies. The instruction is given on the dissected and undissected body, with normal and pathological specimens, microscopical preparations, chemical, physiological and surgical apparatus, splints, &c. The school possesses a good collection of physiological apparatus, allowing of the demonstration to the class of the great bulk of the usual practical exercises in Physiology; also chemical apparatus, allowing every student not only to see, but to repeat for himself, the analysis of the principal food-stuffs, and fluids and solids of the body, and also all the usual reactions, tests, &c. Gentlemen preparing for the Higher Examinations receive special instruction in the more difficult subjects, and have the advantage of personally repeating the practical exercises in Physiology above alluded to. The operations of surgery are performed by the students on the dead body. Private address: 40, Brunswick-square.

SOUTH LONDON SCHOOL OF PHARMACY.—This school was established in 1868, and removed to the present premises in 1875. Owing to the expiration of the lease at the old premises, it has recently been joined by the analytical and general science teaching branches previously carried on at Kennington-cross, and the whole institution is now consolidated under one roof, so bringing every department under the continuous and direct control of the director, Dr. John Muter, M.A., F.R.S.E., F.C.S., F.I.C., who personally delivers the lectures on Chemistry, Physics, and Botany, and superintends the laboratory instruction. The department most valuable to medical Students is the Medical and General Science Tutorial Department. The subjects taught are:—For Matriculation, &c.: Elementary Chemistry. For First B.Sc. and Preliminary Scientific: Inorganic and Practical Chemistry. For First M.B.: Organic Chemistry, Analysis, and Pharmaceutical Chemistry and Materia Medica. For Apothecaries' Hall and Royal Colleges of Physicians, London and Edinburgh: Chemistry, Botany, and Materia Medica. For Pass M.B. Lond: Practical Toxicology and Forensic Medicine. Students attend by special arrangement, and perpetual or time fees may be had from the Secretary, Mr. Baxter, 325, Kennington-road, London, S.E.

SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—Lectures on Chemistry and Physics by Professor Dunstan, F.C.S.; Practical Chemistry, Professor John Attfield, Ph.D., F.R.S., F.I.C., F.C.S., Director of the Laboratories; F. W. Short, Demonstrator; Botany, by Professor Green, B.A., B.Sc.; Materia Medica, by Mr. Holmes, F.L.S.; Practical Pharmacy, Joseph Ince, F.L.S. The session commences on Monday, Oct. 3rd, at 9 A.M. Medical students, or pupils intending to enter the medical profession, are admitted to the lectures, &c., and to a course of practical chemistry of any length in the laboratories. Application for admission to the school, or for further information, may be made to the professors or their assistants in the lecture theatre or laboratories, 17, Bloomsbury-square, London, W.C.

ENGLISH PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

BATH ROYAL UNITED HOSPITAL.—120 beds. Honorary Consulting Physician: Dr. Coates. Honorary Physicians: Drs. Goodridge, Cole, and Fox. Honorary Surgeons: Messrs. Stockwell, Fowler, and Freeman. Honorary Medical Officers for Out-patients: Dr. Field, Messrs. Cowan and Craddock. Honorary Assistant-Surgeons: Messrs. Green, Scott, and Ransford. Dental Surgeon: Mr. Gaine. Pathological Registrar and Curator: Mr. H. Culliford-Hopkins. The hospital is recognised by the Royal College of Physicians, Surgeons, &c., and licensed for dissections. It contains a library and an excellent museum, in which are a large number of interesting specimens, both in Pathology and Comparative Anatomy. Fees for attendance—twelve months, £10 10s.; six months, £5 5s. (Temporary pupils can also, by permission of the Honorary Staff, attend the practice of the Hospital by the payment of £1 1s. for each month.) Instruction in Practical Pharmacy for three months, £5 5s. Number of patients admitted during the past year, 1106; out-patients, 8758. Operations performed, 158. Anæsthetics recorded, 195. For further particulars apply to the Registrar and Curator.

QUEEN'S COLLEGE, BIRMINGHAM.—The Sands Cox Prize, of the value of £20, is offered annually in the Medical Department. It is open to students who have completed their curriculum, and is awarded after examination in Medicine, Surgery, and Midwifery. Two Ingleby Scholarships are offered annually after examination in Obstetric Medicine and Surgery and Diseases of Women and Children. The Scholarships are open to students who have completed the first two years of their curriculum in this College. One or more Sydenham Scholarships will be offered annually, of the value of 30 guineas each. The orphan sons of former students of the Birmingham Medical School have priority of election. No Sydenham scholars are elected whose age exceeds twenty-three years on the day of election. The Scholarships are held for three years, subject to good behaviour. One or more Queen's Scholarships will be offered annually, of the value of 30 guineas. They are held for three years, one-third being paid each year, subject to good behaviour. The Russell Memorial Prize is awarded annually after examination in Nervous Diseases. Students of Queen's College are qualified to compete for all scholarships, gold medals, and other prizes offered by the University of London, the Royal College of Surgeons, and the Apothecaries' Society.

GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM. — *General Hospital:* Consulting Physician: Dr. Fletcher. Consulting Surgeons: Mr. Crompton and Mr. Baker. Physicians: Drs. Wade, Foster, Rickards, and Saundby. Surgeons: Messrs. Pemberton, Bartleet, Jolly, and Chavasse. Obstetric Officer: Dr. Malins. Assistant-Physicians: Drs. Simon and Foxwell. Assistant-Surgeons: Messrs. Haslam and Barling. — *Queen's Hospital:* Consulting Obstetric Surgeon: Mr. Berry. Consulting Surgeon: Mr. S. Gamgee. Physicians: Drs. Sawyer, Carter, and Suckling. Surgeons: Messrs. Furneaux Jordan, Wilders, Bennett May, and Lloyd, Obstetric Surgeon: Mr. A. F. Hawkins. Ophthalmic Surgeon: Mr. Priestley Smith. Dental Surgeon: Mr. Charles Sims. Physician for Out-patients: Dr. Hogben. Casualty Surgeons: Messrs. Clay and Marsh.

MASON COLLEGE, BIRMINGHAM.—Founded 1875. Opened 1880. The session will commence on October 3rd. Instruction is given in Arts and Science, and students are prepared for the various examinations of the University of London. Entrance and other Scholarships and Prizes are offered for competition. This College is associated with Queen's College, Birmingham, for the purposes of medical education, all students of the latter College attending in the Physical, Chemical, Zoological, Botanical, and Physiological Departments of Mason College. The Library contains upwards of 18,000 volumes. A syllabus containing full information as to the various courses of instruction, fees, &c., will be forwarded on application to the Secretary.

BRISTOL SCHOOL OF MEDICINE (affiliated to University College, Bristol).—Students can complete in Bristol the entire course of study required for the Medical and Surgical Degrees of the University of London, and for the Diplomas

of the Royal College of Physicians of London and the Royal College of Surgeons of England, the Apothecaries' Society of London, and the Army and Navy Boards. The lectures and instructions given at University College, Bristol, are adapted to the various Preliminary Arts Examinations above referred to, and also to the Matriculation and Preliminary Scientific Examinations of the University of London; while the Medical School, the Royal Infirmary, and the General Hospital together provide for every detail of the professional curriculum required by the University of London and the above examining boards. All necessary information may be obtained from the Dean of the Bristol Medical School, Dr. Markham Skerritt.

BRISTOL ROYAL INFIRMARY (instituted 1735).—264 beds. Physicians: Drs. Spencer, Shingleton Smith, Waldo, and Shaw. Surgeons: Messrs. Board, Dowson, Prichard, Greig Smith, and Harsant. Ophthalmic Surgeon: Mr. Cross. Assistant-Physician: Dr. Prowse. Assistant-Surgeon: Mr. Paul Bush. House-Surgeon: Dr. Swain. House-Physician: Dr. Williams. Secretary: Lieut.-Colonel Graham.

Scholarships and Prizes.—Two Entrance Scholarships, 35 guineas and 10 guineas, awarded annually in October, after examination in general subjects; Surgical and Medical Suple Gold Medals, 5 guineas each, with 7 guineas added in money; Clarke Prize, 15 guineas; Crosby Leonard Prize, 7 guineas; Tibbitt's Prize, 9 guineas; three Pathological Prizes, 3 guineas each.

Dressers reside in the house in weekly rotation, and have charge of all casualties under the supervision of the house-surgeon. Special instruction (including dresserships) for first-year students in the out-patient department. Class instruction in the wards by the physicians and surgeons on four days a week, in addition to the regular clinical lectures. Clinical Clerkships and Dresserships, 5 guineas for each six months. Special departments for Diseases of Women, the Eye, Ear, &c., with Clerkships and Dresserships attached. A Pathological Clerk is appointed every four months, who performs all post-mortem examinations. The large museum and well-stocked library are arranged and managed for the advantage of students.

Further information can be obtained from Dr. Spencer, Dean of the Faculty.

BRISTOL GENERAL HOSPITAL.—164 beds. Physicians: Drs. Markham Skerritt, Harrison, and Baron. Physician-Accoucheur: Dr. Lawrence. Surgeons: Messrs. Lansdown, Dobson, Keall, and Pickering. Dentist: Mr. Parson. House-Surgeon: Dr. Newnham. Physicians' Assistant: Mr. Webb. Assistant Physician: Dr. Clarke. Assistant Surgeon: Mr. Penny. Assistant House-Surgeon: Mr. Barclay. Clinical Clerkship, six months, £5 5s. Dressership, six months, £5 5s. Obstetric Clerkship, three months, £3 3s. Special clinical instruction is given in Diseases of the Skin, Eye, Ear, and Throat, also in Diseases of Women and in Dental Surgery. Further information may be obtained of the Secretary, at the hospital, or from Dr. Markham Skerritt, Dean of the Hospital Faculty.

Scholarships and Medals.—Lady Haberfield Entrance Scholarship: This scholarship, founded in 1875, of the value of 30 guineas, the interest of £1000, bequeathed for the purpose by the late Lady Haberfield, is awarded annually at the commencement of the Winter Session, after a competitive examination in subjects of general education. Second Entrance Scholarship: An additional Entrance Scholarship of the value of £20 is awarded when more than six candidates present themselves. Clarke Scholarship: A Surgical Scholarship, of the value of £15, founded by H. M. Clarke, Esq., of London, is awarded annually at the end of the Winter Session, after an examination in Surgery. Sanders Scholarship: A Scholarship founded by the late John Nash Sanders, Esq., of the value of £22 10s., is awarded annually at the end of the Winter Session, after examination in Medicine, Surgery, and Diseases of Women. Martyn Memorial Pathological Scholarships, founded in 1878, by public subscription, in memory of the late Dr. Samuel Martyn, Physician to the Hospital. Two Scholarships, each of the value of £10, are awarded annually; one at the end of the Summer Session, and one at the end of the Winter Session. A student may, at the option of the Faculty, hold both these Scholarships. After a competitive examination in Pathology and Morbid Anatomy, the successful candidate is appointed Pathological Clerk to the Hospital for the term of six months. Committee Gold Medal: This medal, presented by the Committee of the Hospital, is awarded annually at the end of the Winter Session to the student of the fourth year who has most distinguished himself during his career at the Hospital and the Medical School. Committee Silver Medal: This medal, presented by the Committee of the Hospital, is awarded annually at the end of the Winter Session to the next most distinguished student of the fourth year. The rules relating to the several Scholarships may be had on application.

ADDENBROOKE'S HOSPITAL, Cambridge.—Clinical lectures in Medicine and Surgery in connexion with the Cambridge Medical School are delivered at this hospital twice a week during the academical year; and practical instruction in Medicine and Surgery in the wards and out-patients' rooms is given by the physicians and surgeons daily, during the vacations as well as term time. Instruction is also given in all the special modes of medical and surgical investigation. Clinical Clerks and Dressers are selected from students according to merit, and without payment.

DEVON AND EXETER HOSPITAL, Exeter.—Medical and Surgical Staff: Consulting Physician: Dr. Drake. Physicians: Drs. Lewis Shapter and H. Davy. Consulting Surgeons: Messrs. A. Cumming and T. W. Caird. Surgeons: Messrs. Blankart, Harris, Domville, and Bell. House-Surgeon: Dr. Blomfield. The hospital contains 214 beds (including special children's wards). There is a good library, museum, dissecting and post-mortem rooms. Attendance on the practice of this hospital qualifies for all the examining boards. Arrangements can be made by which students can attend Midwifery. For further particulars as to fees, &c., apply to the House-Surgeon.

WEST OF ENGLAND EYE INFIRMARY, Exeter.—Surgical Staff: Messrs. Bankart and Toswill. Registrar: Mr. Roper. The infirmary contains fifty beds. Students of the Exeter Hospital can attend the practice of the Eye Infirmary.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, Newcastle-upon-Tyne.—The following Scholarships and Prizes are awarded annually:—A University of Durham Scholarship, value £100, for Proficiency in Arts, awarded to full students in their first year. The Dickinson Scholarship, value £15, and a Gold Medal, for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholarship, value £20, for Anatomy, Physiology, and Chemistry. The Charlton Scholarship, value about £35, for Medicine. The Gibb Scholarship, value £25, for Pathology. The Goyder Memorial Scholarship (at the Infirmary), value about £15, for Clinical Medicine and Clinical Surgery. At the end of each session a Silver Medal and Certificates of Honour are awarded in each of the regular classes. Assistant Demonstrators of Anatomy, receiving each an honorarium of £5, two Prosectors, and two Assistant Physiologists are elected yearly. Two Pathological Assistants, two Assistants to the Dental Surgeon, and two Assistants in the Eye Department are also elected every three months. Medical and Surgical Assistants, Clinical Clerks, and Dressers are appointed every three months.

NEWCASTLE-ON-TYNE INFIRMARY.—Physicians: Drs. Philipson, Drummond, Oliver, and Limont. Surgeons: Drs. Arnison, L. Armstrong, Hume, and Mr. Page. Assistant-Surgeons: Mr. T. A. Dodd and Mr. Williamson. Pathologist: Dr. Drummond. Dental Surgeon: Mr. E. Fothergill. House-Physician: Dr. Edward Cave. House-Surgeons: Dr. W. Baigent and Dr. W. G. Richardson. The infirmary contains 280 beds. There are special wards for the treatment of Children, and for Ophthalmic and Syphilitic Diseases. Clinical Lectures are delivered by the Physicians and Surgeons in rotation. Pathological Demonstrations are given as opportunity offers by the Pathologist. Practical Midwifery can be studied at the Newcastle Lying-in Hospital, where there is an out-door practice of about 300 cases annually. Lectures are given on Psychological Medicine at the Coxlodge Lunatic Asylum by Dr. R. H. B. Wickham, Medical Superintendent. A Special Course of Instruction is given in the Hospital for Infectious Diseases by the Superintendent and City Officer of Health, Dr. H. E. Armstrong.

GENERAL KENT AND CANTERBURY HOSPITAL.—Open for the reception of patients April 26th, 1793. 49,499 in-patients and 88,792 out-patients have been admitted since the hospital was open. The hospital contains 102 beds. Pupils of the staff are admitted to the practice of the hospital, and have the use of the library of the East Kent and Canterbury

Medical Society, for £7 7s. Operation day, Thursday, 11 A.M. Consulting Physician: Dr. Alfred Lochee. Physician: Dr. Henry Alex. Gogarthy. Consulting Surgeon: Mr. James Reid. Surgeons: Messrs. Charles Holttum, Frank Wacher, T. Whitehead Reid, and John Greasley. Dentist: Mr. Martin L. Bell. House-Surgeon: Mr. Z. Prentice. Assistant House-Surgeon and Dispenser: Mr. William P. Barrett. Secretary: Mr. Charles H. Read. Over 800 in-patients, 3000 out-patients, and 1000 dental cases are attended in a year.

LEEDS GENERAL INFIRMARY AND MEDICAL DEPARTMENT OF THE YORKSHIRE COLLEGE.—The Leeds General Infirmary has accommodation for 320 in-patients, surgical and medical, and during the last year 4428 in-patients and 30,985 out-patients were treated; these numbers show a remarkable increase, if compared with statistics of ten years ago, when only 11,500 out-patients were seen. Clinical teaching takes place daily in the wards, and Clinical Lectures are given in the operating-room. There are Medical, Surgical, Ophthalmic, Aural, and Electrical Departments, in each of which special instruction is imparted to students. A Gynæcological and Extern Obstetric Department, together with Laryngeal and Skin Clinics, are in operation. The Public Dispensary, the Fever Hospital, and the West Riding Lunatic Asylum are other medical institutions which are made use of by the Leeds students.

The Leeds Medical School, now the Medical Department of the Yorkshire College, occupies a central position in the town, close to the General Infirmary, and a few minutes' walk from the new buildings of the Science and Art Departments situated in College-road. The present premises were built specially for the purposes of a medical school, and the teaching in purely medical subjects is there given. The teaching in Chemistry and Physics, Practical Chemistry, Practical Toxicology, Biology, and Botany is given in the College-road buildings, the lecture-rooms and laboratories of which are amongst the most commodious in the kingdom. The accommodation for teaching comprises all the conveniences necessary for the various branches of study. All the other courses required by examining boards are given by Professors and Lecturers. The Museums and Library offer special advantages. Several valuable prizes are given at the end of each session. The following appointments at the infirmary are annually open to students: Resident medical officer, resident surgical officer, resident obstetric officer, appointed for twelve months and eligible for re-election. Two house-physicians, holding office for six months; four house-surgeons, for twelve months; twenty-four physicians' clerks, for three months; twenty-four surgeons' dressers, for six months; eight ophthalmic and aural surgeons' dressers, for three months; eight gynæcological ward clerks, for three months; eight gynæcological out-patient clerks, for three months; twenty-four assistant-physicians' clerks, for three months; twenty-four assistant-surgeons' dressers, for three months; forty-eight dressers in the casualty-room, for three months; twelve post-mortem room clerks, for three months.

There are appointments open to students in other medical institutions in the town, and also in the West Riding Lunatic Asylum.

UNIVERSITY COLLEGE, LIVERPOOL, MEDICAL FACULTY: VICTORIA UNIVERSITY.—The Infirmary attached to the School contains 300 beds, with 40 special beds for the treatment of Diseases of Women. Lock, Lying-in, and Eye and Ear Hospitals are in the immediate vicinity, and their practice is open to the students of the Medical Faculty.

The composition fee for lectures and classes is 60 guineas, which may be paid in two equal instalments with an interval of twelve months; and for hospital practice 40 guineas, which may be paid in the same way.

Two house-physicians and three house-surgeons are appointed from the qualified pupils every six months, also clinical clerks, dressers, and post-mortem clerks.

Two Holt Tutorial Scholarships, each of the value of £100, are awarded annually by the Medical Faculty to senior students. Also an entrance Lyon Jones Scholarship of £21 for two years for students proceeding to the Victoria Degree, and another of the same value, open to all students who have completed their second year. The Derby Exhibition of £15 for Clinical Medicine and Surgery. The Torr and Bligh Gold Medals for Anatomy and Physiology, and the class prizes. During the past year the new Chemical Laboratories have been opened, and the old building added to the Physiological Department. The only changes on the staff are the appointment of Mr. Edgar Browne as lecturer on ophthalmology, Dr. Hope as lecturer on Hygiene, and Dr. Ross as Demonstrator of Anatomy.

LIVERPOOL NORTHERN HOSPITAL.—150 beds. There is a special ward for the treatment of children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Physicians: Drs. Cameron, Carter, and Williams. Surgeons: Messrs. Hamilton, Little, and Paul. Senior House-Surgeon: Dr. F. H. Wigmore. Junior House-Surgeons: Mr. J. R. L. Dixon and Mr. W. C. Helme. 200 beds. Clinical Lectures are given by the physicians and surgeons during the winter and summer sessions. Clinical clerkships and dresserships are open to all students. Special wards for accidents and diseases of children. Resident students received.

NORFOLK AND NORWICH HOSPITAL. — 150 beds. One year's attendance recognised by examining boards. Fees: For the physicians' practice, 5 guineas for six months. For the surgeons' practice, including dresserships, £10 for three months; £15 for six months; £20 for one year; £30 for two years. Pupils resident and non-resident. Physicians: Sir Peter Eade, Dr. Bateman, and Dr. Taylor. Surgeons: Mr. Cadge, Mr. Crosse, and Mr. Williams. Assistant-Surgeons: Dr. Beverley and Mr. Robinson. House-Surgeon: Mr. H. Chester Nance.

NORTHAMPTON GENERAL INFIRMARY.—Established 1743; rebuilt 1793. In-patients, 1693; out-patients, 8223. Beds. 144. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given in Anatomy and Materia Medica, and Practical Pharmacy. Pupils' fee £25 per annum, or a perpetual fee of £50.

MEDICAL DEPARTMENT OF OWENS COLLEGE, VICTORIA UNIVERSITY.—This medical school is located in a large new building, which forms a part of Owens College. It is provided with a very large dissecting-room, physiological laboratory, private laboratories, and work-rooms, besides lecture-rooms, a museum, and a library. In order to give the fullest possible opportunities for teaching and investigation in the departments of Anatomy, Physiology, Pathology, and Materia Medica, a great extension of the school buildings has been made. The more strictly practical departments of medical study are taught partly in the Medical School and partly in the Royal Infirmary, to which are attached a fever hospital, a lunatic asylum, and a convalescent home. Medical and surgical clinical classes are conducted in the infirmary by the professors of medicine and surgery, and separate instruction is afforded in the elements of medical and surgical physical diagnosis, in obstetric medicine, ophthalmic surgery, and pathological anatomy by the different members of the staff of the medical school and infirmary. The following scholarships and prizes are open to students of the medical school:—1. A Dauntesey Scholarship of the value of about £100 is offered annually for competition at the beginning of October to persons who have not been students in any medical school in the United Kingdom, and whose age does not then exceed twenty-five years. The subjects of examination are—(*a*) General and Comparative Anatomy; (*b*) Physiological Botany; (*c*) Chemistry; (*d*) Mathematics or Latin. 2. A Scholarship and Prizes are awarded at the end of each academic year to students of the first, second, and third year. 3. A Platt Physiological Scholarship of £50 a year for two years is offered annually to the student who, having studied for one entire session in the Physiological laboratory of Owens College, has prosecuted the best original investigation in Physiology, and has passed a satisfactory examination in Physiology. 4. Two Platt Exhibitions of the value of £15 each, to be competed for by first and second year students in the class of Physiology. 5. A Dumville Surgical Prize of £20 is offered annually for proficiency in Clinical Surgery. 6. Turner Medical Prize, £25. 7. Medical and Surgical Clinical Prizes, each of the value of 6 guineas, are open to competition each year for the best reports (with comments) of cases which have occurred in the wards of the infirmary.

MANCHESTER ROYAL INFIRMARY.—Consulting Physicians: Drs. R. F. Ainsworth, Frank Renaud, H. Browne, and Sir Wm. Roberts. Consulting Surgeons: Mr. Geo. Bowring and Mr. Lund. Physicians: Drs. Henry Simpson, John E. Morgan, D. J. Leech, and J. Dreschfeld. Assistant-Physicians: Drs. James Ross and Graham Steell. Obstetric Physician: Dr. Lloyd Roberts. Surgeons: Messrs F. A. Heath, Walter Whitehead, Thomas Jones, and James Hardie. Assistant-Surgeons: Messrs. Fred. A. Southam and G. A. Wright. Ophthalmic Surgeon: Dr. D. Little. Dental Surgeon: Mr. G. W. Smith. Resident Medical Officer: Dr. Ernest S. Reynolds. Resident Surgical Officer: Mr. Joseph Collier. Medical Registrar: Dr. J. S. Bury. Surgical Registrar: Mr. W. Thorburn. Pathological Registrar: Dr. Thomas Harris. Assistant Medical Officers: Drs. S. Moritz and A. T. Wilkinson. Administrator of Anæsthetics: Mr. Alexander Wilson. General Superintendent and Secretary: Mr. W. L. Saunder.

BARNES CONVALESCENT HOME, Cheadle, Cheshire (in connexion with the Manchester Royal Infirmary).—Resident Medical Officer: Mr. E. T. Milner, M.B. Secretary: Mr. W. L. Saunder.

MONSALL FEVER HOSPITAL, Newton Heath (in connexion with the Manchester Royal Infirmary).—Resident Medical Officer: Dr. H. Falconer Oldham. Assistant Medical Officer: Mr. H. Leader Williams. Secretary: Mr. W. L. Saunder.

MANCHESTER GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury and Gartside-street.—The hospital contains 140 beds, including 28 for scarlet fever. The medical staff visit the hospital daily at 10 A.M. Special classes are held for clinical instruction on Saturday afternoons during the winter months. Out-patients are seen daily at 9 A.M. at the dispensary, Gartside-street, Manchester. Physicians: Drs. Ashby and Hutton. Surgeon: Mr. G. A. Wright. Assistant-Surgeon: Mr. Joseph Collier. During 1886 there were 1166 in-patients and 10,158 out-patients under treatment at the dispensary.

RADCLIFFE INFIRMARY, OXFORD.—This infirmary is open to students for Medical and Surgical work in the wards and out-patients' departments. Clinical lectures are given by the Litchfield Clinical Lecturer in Medicine and Surgery. Also tutorial instruction and demonstrations are given in special Regional Anatomy (medical and surgical), methods of Medical Diagnosis, and Surgical Manipulation. The whole course of study at the museum and infirmary combined is intended for students until they have passed the Second Conjoint Examination, or the 1st Oxford M.B.

SHEFFIELD SCHOOL OF MEDICINE.—The infirmary contains 180 beds, a Museum of Pathology, Library, and Post-mortem Theatre, with microscopes and all the appliances for clinical research. The Public Hospital and Dispensary contains 101 beds, and is recognised by the Examining bodies. Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £45. A tutor's fee of £2 2s. is required from students entering for Anatomy and Physiology.

JESSOP HOSPITAL FOR WOMEN, Gell-street, Sheffield.—The hospital is devoted to Diseases peculiar to Women. There is also an Obstetric Department for the admission of a small number of cases. A staff of midwives connected with the hospital attend lying-in women at their own homes, and in case of need are assisted by the members of the medical staff. Out-patients are attended daily. Students can attend the practice of the hospital, and be supplied with cases of midwifery.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—The New Infirmary, opened in 1869, is built on the pavilion plan has accommodation for over 200 patients, including children's wards and special ovarian wards. In-patients last year, 1666; out-patients, 9209. The attendance of pupils at this infirmary is duly recognised by all the examining boards; and there are unusual facilities for acquiring a practical knowledge of the profession. Physicians and Medical Officers: Drs. J. T. Arlidge and C. Orton, and Messrs. Ashwell and J. G. West. Surgeons: Messrs. W. H. Folker, J. Alcock, and W. D. Spanton. Dental Surgeon: Mr. W. Bartlett. Secretary: Mr. R. Hordley, Hartshill, Stoke-on-Trent, from whom particulars as to fees &c. may be obtained.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Founded 1848. Beds, 224. A preparatory school of Medicine and Surgery. The pupils have the advantage of seeing the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. The attendance of pupils at this hospital is recognised by all the examining boards. Operations are performed every Thursday at 11 o'clock, and practitioners are welcomed.

YORK COUNTY HOSPITAL.—Established 1740; rebuilt 1851. 116 beds. In-patients, 1127; out-patients, 7171. Consulting Physician: Dr. W. Matterson. Consulting Surgeon: Mr. W. D. Husband. Medical Officers: Messrs. R. Hewetson, W. H. Jalland, F. Shann, R. Turner, M.B., and R. Petch, M.B. Dental Surgeon: Mr. W. Glaisby. House-Surgeon: Mr. E. F. Morris. Assistant House-Surgeon: Mr. Lancelot Williams. Secretary: Mr. R. Holtby.

SCOTTISH HOSPITALS AND MEDICAL SCHOOLS.

SCHOOL OF MEDICINE, EDINBURGH.—The lectures qualify for the University of Edinburgh and the other universities; the Royal Colleges of Physicians and Surgeons of Edinburgh, London and Dublin, and the other Medical and Public Boards. In accordance with the Statutes of the University of Edinburgh, any four of the medical classes required for graduation, or two complete *anni medici*, may be attended in this school, each of which *anni medici* may be constituted by attendance on two of the six months' courses, or on one of these and two three-months' courses. The regulations require that the fee for any class, taken for graduation in Edinburgh, shall be the same as that for the corresponding class in the University. The whole education required for graduation at the University of London may be taken in this school.

Fees.—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh the perpetual fee is £2 4s. Practical Anatomy (six months' course), £3 3s.; course of demonstrations, £2 2s.; perpetual, £4 4s. Practical Anatomy with course of demonstrations, £4 4s. Practical Chemistry, £3 3s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Practical Materia Medica, including Practical Pharmacy, Diseases of the Ear, Diseases of the Skin, Diseases of Children, and Diseases of the Tropics and Climatology, each £2 2s. Vaccination, £1 1s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Anatomical Demonstrations, Operative Surgery, and Practical Medicine and Medical Diagnosis, each £2 2s. Insanity, £1 1s.

EDINBURGH SCHOOL OF MEDICINE AND PHARMACY, Marshall-street, Nicolson-square.—The classes of this school will be resumed for the winter session in October. Chemistry, Midwifery, Surgery, and Medicine. From the Dispensary attached to this institution, Pharmacy, Practical and Theoretical. Practical Midwifery. Out-door Practice. Medical and Surgical Diagnosis. Attendance at this institution qualifies for the University of Edinburgh and all other licensing boards. Tutorial classes in all the branches of the medical curriculum. Preliminary Medical Classes, 11 A.M. to 4 P.M., and in the evening. Particulars of R. Urquhart, Secretary.

ROYAL INFIRMARY, EDINBURGH.—Beds are set apart for clinical instruction by the professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary physicians and surgeons. Special instruction is given in the medical department on Diseases of Women, Physical Diagnosis, and on Diseases of the Skin; and in the surgical department on Diseases of the Eye, the Ear, and Larynx. Separate wards are devoted to Venereal Diseases, Diseases of Women, Diseases of the Eye, also to cases of Incidental Delirium or Insanity. Post-mortem examinations are conducted in the anatomical theatre by the pathologists, who also give practical instruction in Pathological Anatomy and Histology. The fees for hospital attendance are as follows—viz.: Perpetual ticket, in one payment, £12; annual ticket, £6 6s.; six months, £4 4s.; three months, £2 2s.; monthly, £1 2s. Separate payments amounting to £12 12s. entitle the student to a perpetual ticket. No fees are paid for any medical or surgical appointment. The appointments are as follows:—1. Resident physicians and surgeons are appointed, and live in the house

free of charge. The appointment is for six months, but may be renewed at the end of that period by special recommendation. 2. Special non-resident clerks are appointed for six months. The appointment may be renewed for a like period by special recommendation. 3. Clerks and dressers are appointed by the physicians and surgeons. These appointments are open to all students and junior practitioners holding hospital tickets. 4. Assistants in the pathological department are appointed by the pathologists.

ANDERSON'S COLLEGE MEDICAL SCHOOL, GLASGOW.—The following courses are given, which qualify for all the licensing boards:—In winter: Anatomy, Chemistry, Physiology, Surgery, Medicine, Materia Medica, &c. In summer: Midwifery, Medical Jurisprudence, Botany, Hygiene, &c. The Chemical Laboratory is open daily from 10 to 5. Students of the School are admitted to the Lectures and Clinique at the Ophthalmic Institution free of charge.

Fees.—Each course of lectures (except Anatomy), first session, £2 2*s.*; second session, £1 1*s.*; afterwards free. Anatomy (including dissecting-room), first session, £4 4*s.*; second session, £4 4*s.*; third session and perpetual, £1 1*s.*; summer (including Practical Anatomy), £2 2*s.* Practical Anatomy only, £1 1*s.*; Osteology, £1 11*s.* 6*d.* Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at reduced fees Fees for all the Lectures and Hospital practice required of candidates for triple qualification, £48.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—The winter session will open on October 26th. Courses of lectures are given on all the subjects required by the licensing bodies for qualification, and lectures and demonstrations are also given on Public Health, Practical Physiology, Operative Surgery, Aural Surgery, Dental Surgery, Diseases of the Eye, and of the Throat and Nose. During summer lectures on Insanity are given by Dr. A. Robertson, in the City Asylum under his charge.

Class Fees.—For each course, first session, £2 2*s.*; second session, and perpetual, £1 1*s.*; Anatomy: First winter session, £4 4*s.*; summer session, £1 11*s.* 6*d.*; second winter session, £4 4*s.*; afterwards the fee for lectures and practical anatomy is £1 11*s.* 6*d.* per session. Lectures on Diseases of the Ear, £1 1*s.*; with clinique to those not students of the hospital, £2 2*s.* Dental Dispensary free to students of the hospital; to others, £5; first year, perpetual, £10. Lectures on the Eye £1 1*s.*; other special courses free.

GLASGOW ROYAL INFIRMARY.—Number of beds. 542. In addition to the ordinary medical and surgical wards, there are separate wards for the treatment of Venereal Diseases and the Diseases of Women, whilst Diseases of the Skin, Eye, Ear, Throat, and Teeth are specially treated at the Dispensary. Courses of Clinical Medicine and Surgery are given by the physicians and surgeons; instruction in Pathological Anatomy and Histology is given by the pathologist.

Appointments.—There are four physicians' and six surgeons' assistants. These appointments are free, and can be held for twelve months; they are open to students who have passed all their examinations except the last, or to gentlemen who have a qualification in medicine or surgery. Clinical assistants, dressers, dispensary clerks, and pathological assistants are selected from the students without additional fee.

Fees for Hospital Practice and Clinical Lectures.—First year, £10 10*s.*; second year, £10 10*s.*; afterwards free. For six months, £6 6*s.*; three months, £4 4*s.* Vaccination certificates, £1 1*s.*

GLASGOW HOSPITAL AND DISPENSARY FOR DISEASES OF THE EAR, 28, Elmbank-crescent.—The hospital, which contains twelve beds for in-door patients, is always open for urgent cases. Hours of surgeons' visits, 2 P.M. daily; clinical teaching daily. Out-patients are seen on Mondays, Tuesdays, Thursdays, and Fridays, at 2 P.M., by Dr. Barr and assistants; and operations and special demonstrations to students and practitioners take place on Thursdays from 3 to 4 P.M.

GLASGOW WESTERN MEDICAL SCHOOL, University-avenue, Hillhead.—The school is situated close to the Western Infirmary, where students obtain their Hospital Practice and Clinical Lectures. To accommodate the increasing number of students, the dissecting rooms have been recently entirely rearranged and enlarged. The attention of students is directed to the unusual facilities presented for the study of Practical Anatomy and Operative Surgery, the supply of subjects being practically unlimited. The dissecting rooms are open for work from the beginning of October till the end of July.

The lectures qualify for the University of Glasgow in accordance with the regulations, the Faculty of Physicians and Surgeons, Glasgow, and the other corporations.

Class Fees.—For each course of lectures, first session, £2 2*s.*; second session, £1 1*s.* Students who have attended a first course elsewhere pay £1 1*s.* Anatomy, including Practical Anatomy, £4 4*s.* Summer session, £1 11*s.* 6*d.*

GLASGOW WESTERN INFIRMARY.—This hospital adjoins the University of Glasgow. Number of beds upwards of 400. Special wards are set apart for Diseases of Women and for Cutaneous Affections. In the out-patient department there are special cliniques for Diseases of Women and for Diseases of the Throat, Ear, and Teeth. The Clinical Courses are given by the Physicians and Surgeons, each of whom conducts a separate class, and students may attend whichever they select at the beginning of the session. Special instruction is given to junior students by tutors or assistants, and clinical clerks and dressers are selected from the members of the class. All the courses of clinical instruction are recognised by the University of Glasgow and the other boards in the kingdom. In the Pathological Department a systematic course is given in the winter and a practical course in the summer; these are likewise recognised by the University for graduation. Eight resident assistants are appointed annually, without salary, from those who have completed their course. The fee for the hospital practice, including the various courses of clinical instruction, is 20 guineas in one payment, or in two equal instalments for the first and second years; for six months, 7 guineas; and for three months, 4 guineas.

GLASGOW HOSPITAL FOR SICK CHILDREN, situated at Garnet-hill, was opened in December, 1882, and is now available to medical students for clinical instruction in the diseases peculiar to childhood. The hospital includes 57 beds for non-infectious cases only.

GLASGOW OPHTHALMIC INSTITUTION, 126, West Regent-street.—40 beds. Clinical and systematic course of lectures for students during the winter and summer seasons.

ABERDEEN ROYAL INFIRMARY.—Contains about 250 beds. Consulting Physician: Dr. A. Harvey. Physicians: Drs. J. W. F. Smith-Shand, R. Beveridge, Angus Fraser, and P. B. Smith. Surgeons: Messrs. A. Ogston, J. O. Wall, R. J. Garden, and Hall. Dental Surgeon: Dr. Williamson. Treasurer and Secretary: Mr. W. Carnie.

ABERDEEN ROYAL LUNATIC ASYLUM.—Contains about 580 beds. Consulting Physician: Dr. Robert Jamieson. Clinical instruction is given to students during three months in summer.

IRISH HOSPITALS AND MEDICAL SCHOOLS.

QUEEN'S COLLEGE SCHOOL OF MEDICINE, Belfast.—Eight Junior Scholarships have been founded in the Faculty of Medicine, of the annual value of £25 each. Two are tenable by Matriculated Students, commencing the first, second, third, and fourth year of their course respectively. The examinations for Junior Scholarships of the second and third years in the Faculty of Medicine take place at the commencement of the second and third year of their medical course. Matriculated Students in Medicine intending to compete for Medical Scholarships of the second year must be of not more than one year's standing as students of Medicine, and must have attended, in some of the Queen's Colleges or in a University capable of granting degrees in Medicine, two at least of the following courses—viz.: Chemistry, Botany and Zoology, Anatomy and Physiology, Materia Medica and Pharmacy, Practical Chemistry, Practical Anatomy. Matriculated students in Medicine intending to compete for Medical Scholarships of the third year must be of two years' standing and not more, and must have attended, in some of the Queen's Colleges or in a University capable of granting degrees in Medicine, four at least of the following courses—viz.: Chemistry, Botany and Zoology, Anatomy and Physiology, Materia Medica and Pharmacy, Practical Chemistry, Practical Anatomy. Matriculated Students in Medicine intending to compete for Medical Scholarships of the fourth year must be of three years' standing and not more, and must, in addition to the qualifications prescribed above, have attended, in their

third year, two at least of the following courses—viz.: Theory and Practice of Medicine, Theory and Practice of Surgery, Midwifery, and Diseases of Women and Children.

QUEEN'S COLLEGE SCHOOL OF MEDICINE, Cork.—The building is provided with a very large, well-ventilated dissecting-room, with physiological and toxicological laboratories, materia medica, anatomical and pathological museums, as well as a room for surgical and obstetrical instruments and appliances. There are well-appointed physical and chemical laboratories, and a large natural history museum in the adjoining building, and part of the College ground is laid out as a botanical garden. The plant houses are now completed and well filled with plants, and are open to the students in the class of Botany.

Fees.—For Practical Anatomy and for Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 first course, and £2 for each subsequent course. Other medical classes, £2 first course, and £1 each subsequent course. Eight scholarships (value about £30 each), as well as several exhibitions and class prizes, are awarded every year.

SIR PATRICK DUN'S HOSPITAL, Dublin (in connexion with the School of Physic).—The payment of £3 3*s.* to the hospital entitles any student to attend the clinic of the hospital for twelve months, and to attend the lectures delivered by the University Lecturer in Operative Surgery. Students who have taken out the degrees of Bachelor in Medicine and Master in Surgery in Trinity College are entitled to attend the hospital as perpetual free pupils.

Clinical Lectures are delivered in the hospital theatre at 10 o'clock on Mondays and Tuesdays. In addition to the hospital fee, the payment of a fee of £9 9*s.* is required for the privilege of attending these lectures. Total fees for hospital and lectures for twelve months, £12 12*s.*

Sir Patrick Dun's Maternity.—Total fees for college students, £3 3*s.* Total fees for externs, £6 6*s.*

THE ADELAIDE MEDICAL AND SURGICAL HOSPITALS, Peter-street, Dublin.—Fee for nine months' hospital attendance £12 12*s.*; six months', £8 8*s.* Summer, three months', £5 5*s.*

Three resident pupils are selected half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, in Obstetric Medicine, and in Ophthalmic Surgery will be awarded.

Hudson Scholarship.—In addition to the junior prizes, the Hudson Scholarship, £30 and a gold medal, as well as a prize of £10, together with a silver medal, will be awarded at the end of the session for proficiency in Clinical Medicine and Medical Pathology, Clinical Surgery and Surgical Pathology, Pathological Histology, Surgical Appliances, including instruments and bandaging, Ophthalmology, and Gynæcology.

The certificates of attendance are recognised by all the universities and licensing bodies in the United Kingdom.

LEDWICH SCHOOL OF SURGERY AND MEDICINE, Peter-street, Dublin (formerly original School of Anatomy, Medicine, and Surgery).—There are endowments in favour of students, subject to conditions prescribed by the founder, in the following departments:—Two in Anatomy and Physiology; two in Minute Anatomy; two in Practical Anatomy; one in Surgery. Certificates of attendance on these lectures are received by the various examining boards; by the Apothecaries' Halls of Dublin and London; by the King and Queen's College of Physicians in Ireland; by the Royal Colleges of Physicians, London and Edinburgh; by the Royal University, the Universities of Dublin, London, and Glasgow; by the Glasgow Faculty of Physicians and Surgeons; and by the Queen's University in Ireland. The Senate of the Royal University having recognised the lectures of this school, arrangements have been made to educate students for its Medical and Surgical Degrees in accordance with its requirements. This school is in a central situation, and is replete with every convenience for study and successful instruction. By its teachers it is connected with nine hospitals, four of which are Medical and Surgical hospitals, one for Fever, one for Midwifery and Diseases of Woman and Children, one for Diseases of the Eye and Ear, &c.

Returns for the session 1887-8 have not been received from this school.

CARMICHAEL COLLEGE, Aungier-street, Dublin.—The following scholarships &c. are awarded to students entering for an *annus medicus* for the current year:—The Carmichael Scholarship, value £15; the Maine Scholarship, value £15; also Lecture Prizes, value £3 and £2 each; £97 being given annually in prizes.

DR. STEVENS'S HOSPITAL.—This hospital, containing beds for 250 patients, is situated close to the Kingsbridge Terminus of the Great Southern and Western Railway occupying a position in the centre of one of the busiest manufacturing districts of the city, otherwise unprovided with medical institutions. Immediately adjoining is St. Patrick's (Swift's) Asylum for the Insane. The hospital is easily accessible by two lines of tramways, and owing to its position affords exceptional advantages for clinical instruction. There is a ward entirely devoted to Syphilitic Disease, a detached building for Fever cases, and an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, Teeth, and those peculiar to Women.

The hospital is visited daily at 8.30 A.M. by the resident surgeon, and at 9 A.M. by the physicians and surgeons. The surgical wards are also visited each evening. Clinical Lectures are given by the physicians and surgeons during the session. There is accommodation in the hospital for two medical and six surgical resident clinical assistants, who, in addition to their rooms and furniture, are provided with coals and gas.

Fees.—Hospital Practice: Nine months, £12 12*s.*; six months, £8 8*s*; three months, £5 5*s.* Dresserships: Winter, six months, £21; summer do., £15 15*s.*

MATER MISERICORDIÆ HOSPITAL, Dublin.—This hospital contains 230 beds, 50 beds being specially reserved for patients suffering from fever and other contagious diseases. Two Clinical Lectures will be delivered in each week, in addition to the daily bedside instruction. A special course of lectures on Fever will be given. A certificate of attendance upon this course, to meet the requirements of the King and Queen's College of Physicians, may be obtained. A ward has been assigned for the treatment of Ophthalmic Diseases. Opportunities are afforded for the study of Diseases of Women in the ward under the care of the Obstetric Physician, and at the dispensary held on Wednesdays and Fridays during the session. Lectures on Clinical Gynæcology will be delivered on Wednesdays. "Leonard Prizes" (Clinical): Prizes of the value of £30 will be given at the end of the winter session, in accordance with the directions contained in the will of the late Mark Leonard, Esq. Certificates of attendance upon this hospital are recognised by the Royal University and all the licensing bodies in the United Kingdom.

Fees.—Nine months, £12 12*s.*; six winter months, £8 8*s.*; three summer months, £5 5*s.*

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS, North Brunswick-street, Dublin.—These hospitals contain 312 beds—110 for Surgical cases, 82 for Medical cases, and 120 for Fever and other epidemic diseases.

There will be a distinct course of Lectures and Clinical Instruction in Fevers. Operations are performed on Monday and Wednesday mornings, except in cases of emergency. A course of Practical Instruction in Ophthalmic Surgery will be given. Fee for the certificate, £3 3*s.*

A Resident Surgeon is appointed every alternate year, receives a salary, and holds office for two years. Eight Resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, fuel, &c. These appointments are open not only to advanced students, as formerly, but also to those who are qualified in Medicine or Surgery. Dressers are selected from among the best qualified of the pupils, without the payment of additional fee.

COOMBE LYING-IN HOSPITAL, AND GUINNESS DISPENSARY FOR THE TREATMENT OF DISEASES PECULIAR TO WOMEN.—The hospital contains 65 beds, and has also a large extern maternity attached. Nearly 3000 confinements are attended annually by the pupils of the hospital. A special dispensary for diseases peculiar to women is held daily, and clinical instruction given. The certificates of the hospital are recognised by all licensing bodies, and its diploma is accepted by the Local Government Board, &c. Further particulars can be learned from the Master at the hospital.

ROTUNDA HOSPITAL, Rutland-square, Dublin.—This institution consists of two distinct hospitals—namely, the Lying-in Hospital and the Auxiliary Hospital, the latter for the reception of patients suffering from Uterine and Ovarian Diseases. There is also a large extern maternity in connexion with the hospital, and a dispensary for Diseases peculiar to Women, which is open daily. Clinical instruction is given daily (Saturdays excepted) in Midwifery and the Diseases peculiar to Women, special attention being directed to the application of antiseptics in midwifery, and

lectures on these subjects are delivered regularly throughout the session. Accommodation is provided for a limited number of intern pupils.

MEDICAL TEACHERS.

Dr. ALTSCHUL has made Stuttering, Lisping, Falsetto, recent or of long standing, due to Nervousness, &c., irrespective of age or sex (without any mechanical appliances), his special, life-long study. The voice developed and strengthened.—9, Old Bond-street, W.; and at Brighton and Hastings.

Messrs. BAILLY and COATES prepare candidates for Matriculation, Apothecaries' Hall, College of Preceptors, and all other English, Scotch, and Irish Medical Preliminary Examinations.—30-32 Ludgate-hill, E.C.

Mr. J. BECKTON, C.M., prepares candidates for the London Matriculation, Medical and Law Preliminary, University, Local, and other Examinations. Boarders received.—41, Torrington-square, W.C.

Messrs. BOSWORTH and STERN prepare for Preliminary Medical, First B.Sc., &c.—Kenmore, Putney, S.W.

Mr. L. BRYAN, M.A. Cantab., continues for the thirteenth year his most successful preparation of resident and non-resident students for Matriculation and the Medical Preliminaries. Students entering at any of the hospitals are taken as boarders and receive careful supervision, every home comfort, and assistance in their professional studies.—140, Gower-street, W.C.

Mr. H. CRASSWELLER, B.A., prepares candidates for Medical and Law Preliminaries and Matriculation.—12, Aberdeen-park-road, Highbury, N.

Mr. A. H. DAWES, 1st B.A. Lond., gives lessons privately, in class or by post, in preparation for the London Matriculation and Medical Preliminary Examinations.—31, Southampton-street, Strand, W.C.

Mr. H. N. DIXON gives a thorough and high-class education to Deaf Children based upon the Oral method.—25, St. Paul's-road, Northampton.

Mr. JOHN EVANS, M.A., prepares candidates for all Examinations.—Queen's-park, Oswestry.

Mr. J. GIBSON, M.A., prepares candidates for the London Matriculation, and Preliminary Medical and Legal Examinations.—Quernmore, Bromley, Kent.

Mr. THOMAS LYLE, M.A., F.R.Hist.S., of the London and Dublin Universities, prepares gentlemen, resident and non-resident, for the various Preliminary Arts Examinations and Matriculation at the London University.—Grove House, Shacklewell-lane, London, E.

Mr. MAINWARING, B.A., prepares candidates for all Preliminary Examinations.—115, Edith-road, West Kensington.

Mr. A. ORMOND prepares candidates for Preliminary Medical Examinations.—24, St. Mary Abbott's Terrace, Kensington.

Mr. PIESSE prepares candidates in Materia Medica, Botany, Pharmacy, and Chemical Physics.—Savoy House, 115, Strand, W.C.

Mr. W. VAN PRAAGH has made the cure of all Defects of Speech, both acquired and congenital, his special study.—11, Fitzroy-square, W.

Mr. J. W. SAUNDERS, A.P.S., G.S.T., prepares gentlemen for Examination in Anatomy, Physiology, Botany, Chemistry, Materia Medica, Pharmacy, &c.—6, Rochester-square (late Camden-road), N.W.

Mr. H. SERGEANT, B.A. Lond., holds special classes for London University Matriculation, the Preliminary Medical Examinations, &c.—8, High-street, Camden-town, N.W.

Mr. V. BUTLER SMITH assists pupils in reading up for the London Matriculation, and Legal, Medical, and Pharmaceutical Examinations.—Polytechnic, Regent-street, W.

Mr. H. WAITE prepares pupils for Matriculation, Preliminary Scientific, and the Examinations for Medical Registration of all the licensing bodies.—342, Strand, W.C.

Mr. F. A. WHITE, B.A., prepares candidates for Matriculation and Medical and Legal Preliminary Examinations.—67, Richmond-road, Bayswater, W.

Mr. H. W. WHITE educates Deaf and Dumb Children of the higher classes on the Pure Oral system.—115, Holland-road, Kensington.

Mr. MAURICE WILLIAMS prepares candidates for Examination in Theoretical and Practical Chemistry, Materia Medica, &c.—The City School of Chemistry, 27, Chancery-lane, W.C.

Mr. J. WOODLAND, F.L.S., F.C.S., holds classes and demonstrations in Practical and Theoretical Chemistry, Chemical Physics, Materia Medica, and Pharmacy; in the Botanical classes specimens are supplied to each student, and all apparatus is found for the Practical Chemistry course. These classes are held for candidates for the Primary L.R.C.P., L.S.A., and the M.B. degree of the different Universities, at the Central School of Chemistry.—173, Marylebone-road, N.W.

A TABULAR VIEW OF THE DAYS AND HOURS OF THE INTRODUCTORY LECTURES

To be delivered at the different Medical Schools.

	Lecturers.	Days and Hours.
St. Bartholomew's Hospital	(No Lecture) ...	——
Charing-cross Hospital	(No Lecture) ...	——
St. George's Hospital	Mr. Dent	Oct. 3rd 4
Guy's Hospital	(No Lecture) ...	——
London Hospital	(No Lecture) ...	——
St. Mary's Hospital	Mr. Critchett ...	,, 3rd
Middlesex Hospital	... ...	,, 3rd 3
St. Thomas's Hospital	Mr. Reid	,, 1st 3
University College	Dr. Crocker	,, 3rd 4
Westminster Hospital	Dr. Sturges	,, 3rd 4
Sheffield School of Medicine	Dr. White	,, 3rd 5
Yorkshire College, Leeds	Dr. M. Duncan ...	,, 3rd
University of Glasgow	Prof. Simpson ...	,, 25th
Anderson's College, Glasgow	Dr. B. Duncan ...	,, 26th
Glasgow Royal Infirmary School of Medicine	Dr. Newman ...	,, 30th
Royal College of Surgeons in Ireland School of Surgery	Sir W. Stokes ...	,, 31st

Annotations.

"Ne quid nimis."

TREATMENT OF SCARLET FEVER.

IT would be interesting if a census were to be taken with a view to ascertain what treatment of scarlet fever was most in vogue amongst practitioners of to-day. We suspect that not an inconsiderable portion of this vote would fall to the lot of expectancy, by which must be understood the absence of any attempt to arrest the course of the malady, combined with great watchfulness of the symptoms and the treatment of the most dangerous of these morbid phenomena. The present epidemic is for the most part of a mild nature, but considerable attention has to be given to the throat, which seems to suffer in a marked degree, the glandular swelling being correspondingly marked. Hence it will be found that gargles of all kinds, and especially those of an antiseptic nature, are freely used, together with compresses of various degrees of heat and moisture applied to the neck. Most practitioners, even those of the most expectant schools, employ topical applications to the throat and nose. Many articles are used to relieve the thirst and sensation of dryness, but nothing is more effective than ice and a little raspberry vinegar. It is important to keep the nostrils and nasal passages sweet and clean. For cerebral symptoms, nothing is better than the application of cold, either in the mild form of lint soaked in iced water and applied to the shaven head, or in the more effective capilline tubes, with irrigation. Compression of the carotid arteries and bleeding are seldom practised nowadays, either in scarlet or any other fever. Aconite in minute doses, frequently repeated, is still the favourite drug of many practitioners, but its employment needs the exercise of clinical discretion, especially in children. Actual bathing in cool or tepid water is practised by but few physicians, though the number of practitioners who recommend the use of cold or tepid sponging, the patient lying in bed on a mackintosh, appears to be largely on the increase. Most of the alleged specific and curative agents have long since lapsed into discredit. Belladonna finds but few adherents, and carbonate of ammonia almost none. Considerable difference of opinion exists on the merits of inunction with fat, cold cream, and the like, two of the most recent authors on the diseases of children taking opposite views, Dr. Goodhart advocating and Dr. Angel Money opposing the universal inunction, though the latter sees no objection to relieving the tension of the palms and soles by the application of geoline or vaseline scented with eucalyptol.

ACETONURIA IN INFANCY.

THE researches of von Jaksch and of Penzoldt, and many others, have shown that the occurrence of acetonuria is not the special appanage of grave diabetic accidents (*vide* THE LANCET, vol. ii. 1885, p. 392), but may occur in a great variety of diseases, including fevers, carcinoma, and insanity. There seem also some grounds for believing that even the healthy organism may not be altogether free from the presence of some of this said acetone which is unquestionably a deleterious body, though it is possible that minute doses of it, like minute doses of many other poisons, are borne by the economy with impunity. Baginsky has given much attention to the occurrence of acetonuria in infant life, and from his researches it would appear that amongst children a physiological acetonuria of slight degree and inconstant nature does exist. Pathological acetonuria is common amongst children suffering from febrile disorders, and the presence of acetone in the urine appears to be related directly to the intensity of the febrile process, since a slow

diminution in the amount of acetone in the urine has been observed in pneumonia from its commencement to its termination. The researches of Baginsky, whilst admitting the existence in a slight degree of acetonuria during the normal life of infants, prove, so far as they go, that acetonuria is specially to be associated with the febrile state, and, in fact, that it increases with an increase in the fever. It has been proved, also, that a fleshy diet increases acetonuria, whilst the ingestion of non-nitrogenous food is not followed by acetonuria. Since acetonuria of a very intense degree may be discovered in the course of convulsive diseases in infancy, it is obvious that many mechanisms are capable of setting up the conditions on which the presence of acetone in the urine depends. It seems clear, however, that neither asphyxia induced by, nor the administration of choral for, the convulsive seizures is an efficient explanation; nor are there good grounds for believing that acetone can be regarded as a common cause of convulsions, for these spasmodic affections may be unattended with acetonuria, and, further, acetonæmia is not usually the cause of tonic or clonic spasms, as the experiments of Baginsky showed. We neither know for certain the place at which acetone originates, the materials out of which it is constructed, the precise effects on different tissues, nor its ultimate fate in the metabolic system. Conjectures have been made that it originates from hydro-carbons of digestion; but Baginsky has discovered acetonuria in a dog fed wholly on animal food, whilst acetone disappeared from the urine when the dog was fed exclusively on hydro-carbonaceous material. It appears probable that nitrogenous material is the source of this chemical body. Baginsky has found a considerable amount of acetone in the urine of a child aged four years, who had swallowed some dilute nitric acid. Grave symptoms, with loss of consciousness, delirium, grinding of the teeth, and small pulse, were observed as the effect of the intoxication; the urine was albuminous also. The acetonuria could not be ascribed to the fever, for the temperature did not go beyond 38·2° C., but there was considerable disintegration of nitrogenous material. Although Jaksch admitted that acetone is formed during the lactic acid fermentation, yet a chemical examination of the contents of the stomach drawn off by washing, and of the intestines as discharged per anum, failed to detect appreciable quantities of acetone; the source of the acetone can therefore hardly be traced to any functional disturbance of the digestive organs.

THE ILFRACOMBE DISASTER.

THE sad yachting accident at Ilfracombe, by which it is feared that fourteen or fifteen lives have been lost, on a smooth sea in a summer afternoon, and within easy sight of land, is in danger of being dismissed a little too hastily. It happened on Friday, between 3 and 4 P.M.; and on the evening of the next day the coroner closed the investigation, and the jury returned a verdict of "Accidental death." When such a dismal disaster as this occurs, the one redeeming use to be made of it is the extraction of such lessons as will tend to prevent the recurrence of another. A little less sail, a little more ballast, a little more discipline in the management of the movements of the passengers, a little more preparation for an ordinary squall and its consequences, a greater number of seamen in a crew,—one or more of these or other such precautions might probably make all the difference and avert catastrophes that not only bring the greatest and most irreparable distress to families, but unnecessary discredit on boating pleasures, and on the admirable and noble class of boatmen who are so unselfish and so efficient. We regret that the accident has not been turned to better account, and that the jury have not come to a more definite conclusion. One lesson of the accident is the value of swimming. One of the survivors, who owes her life to it, is a little girl of nine years, who, it is said, had only had one lesson. It is gratifying to report how prompt and hearty were the efforts of the profession of the town, assisted by several visitors, to restore those brought to shore.

INFLUENCE OF TEMPERATURE ON MORTALITY RATES.

EVERY season of the year as certainly brings its crop of one or another disease as of some special form of vegetation, and those upon whom devolves the duty of providing hospital accommodation for infectious maladies know at what period arrangements must be made for cases of scarlet fever and enteric fever, and during which months it may be anticipated that typhus and small-pox will have the best opportunities for their development. The seasonal prevalence of epidemic disease has been long understood, and the records of the Registrar-General and the writings of Dr. G. B. Longstaff afford ample material for learning the months of the year during which the maximum number of cases of each affection may be anticipated. But, with few exceptions, it cannot be argued that a hot season will produce a greater prevalence of any one disease than a period during which the temperature is lower. Scarlet fever, which is at its minimum from January to May, and attains its maximum in October and November, does not appear to have this maximum accentuated by a specially high temperature of the atmosphere. The circumstances which affect its prevalence are evidently not limited to climatic conditions alone, but are more especially those which have led to the accumulation of susceptible persons in a community. Diphtheria, however, which differs from scarlet fever in the particular that it does not appear to protect the infected individual against subsequent attacks, and therefore cannot by its presence or absence affect the amount of susceptibility of the population, is also liable to periodic prevalence, and attains its maximum influence on the death-rate a little later than scarlet fever, although its distribution during the year is more equal than that of the latter disease. The lowness of temperature of the winter months undoubtedly influences the mortality from affections such as measles and whooping-cough, which frequently kill by pulmonary complication. But their prevalence is also seasonal, and the greater number of deaths from the former diseases actually occurs during May and June, when the temperature is much above that of the average of the winter months. Of the acute infectious diseases, the effect of temperature is, perhaps, most marked in its effect upon the prevalence of small-pox, high temperature appearing to be inimical to its diffusion. The class of affections beyond all others which are developed in periods of high temperature are bowel disorders, and especially infantile diarrhœa, which regularly claims its victims after the first few weeks of warm weather, and which develops an especially destructive power, which is directly dependent upon the height of the temperature. The researches of Dr. William Johnstone of Leicester, which are being continued by his successor in that borough, have raised a strong probability that this disease is of bacterial origin, and the objections to this theory, based upon the fact that as a rule infants alone lose their lives from this cause, has been answered by Dr. Johnstone, who has shown that older members of the invaded household are frequently attacked by similar symptoms, which, however, affect the stronger person less severely. The hot season which England has recently experienced has not been without its effect on infantile mortality from this cause, and London has suffered at the rate of fully 50 per cent. more than the average of the past ten years. A full understanding of all the conditions which tend to produce this terrible mortality is sadly needed in the interest of

humanity; but work of this character is arduous and intricate, and will require the patient observation of skilled investigators for years before the conditions of life can be accurately appreciated which are responsible for its occurrence.

THE NEW LABORATORY AT KING'S COLLEGE, LONDON.

EVERY effort is being made for the completion of the new Bacteriological Laboratory by October 1st. The laboratory will consist of three rooms. The principal room was one of the largest lecture rooms in the College, and will afford ample accommodation for the practical courses in November and April, and for those who wish to undertake original investigations. Two new rooms are being built for the Professor and his assistants. Each student will be accommodated in a section of the laboratory, where he can work independently and undisturbed. The plan of study followed by each student will depend on the object he may have in view. He may work entirely independently for a month, or for a longer time by arrangement. He may join the laboratory for private study under the supervision of the Professor. He may attend the laboratory when lectures with practical instruction are daily given by the Professor. For this purpose practical courses will be held in November and April. The lectures during these months will be daily from 10 to 11 A.M., and will be illustrated with diagrams and typical preparations, and followed by practical work. The laboratory will be open the first week in October, and closed at the end of June. The hours of attendance will be daily from 10 A.M. till 4 P.M., except on Saturday, when the laboratory will close at 1 P.M. For further particulars applications should be made to Professor Crookshank.

ENDARTERITIS AND SPINAL SOFTENING.

THE pathology of cerebral and spinal softening is still often obscure, especially of the latter. Many cases of so-called transverse myelitis have nothing inflammatory in their nature; some are attributed, and with reason, to anæmic necrosis. The occurrence of such a case in Liebermeister's clinic has afforded Professor Nauwerck the opportunity of making an examination in a comparatively early stage of the disease. (*Beitr. zur Path. Anat. u. Phys.*, Bd. ii., Jena, 1887.) The patient was attacked with paraplegia in October, and died in December, 1885, the fatal issue being hastened by an extensive scald, brought about by her being placed in an over-heated bath. The cord in the region of the fifth to the eighth dorsal nerves appeared soft, moist, swollen, and white, the grey matter being very indistinct. Scrapings of the cut surface yielded spheres of fatty granules and free oil globules. On microscopical examination, in the cervical region there was degeneration of the columns of Goll and the cerebellar tracts. The degeneration involved larger areas as the mid-dorsal region was approached, so that at the level of the sixth dorsal nerve no demarcation was visible between the white and grey substance, the whole of the section appearing cloudy, studded with yellow and greenish-yellow spots. At the level of the seventh nerve the grey matter was slightly defined, but near the left posterior column, reaching to the posterior commissure and involving the central part of the right column of Goll, was a sharply-defined focus, oval in shape and of a yellow colour, which contained small drops of myelin, compound granule corpuscles, oil globules, and some round cells. Below this point the amount of degeneration gradually dwindled, the pyramidal tracts in the lower dorsal region alone being involved. In the main, the degenerative changes were limited to the white matter, the axis cylinders and medullary sheaths being swollen or broken up into masses of myelin and fat granules. Some medullated fibres in the grey substance were similarly changed, but the ganglion cells appeared unaffected. In all parts the destruction of nerve fibres was accompanied by a slight degree of sclerosis from proliferation of the neuroglia. The small focus of softening, which formed a cavity with curdy contents, at the level of the seventh nerve, was the most advanced in degeneration, the neuroglia as well as the nerve elements being destroyed. But in no part was there any evidence of inflammatory change. The small arterioles in the vicinity of the focus of softening presented thickening and hyaline changes in their walls; some of the vessels in the mid-dorsal region being quite occluded by pale thrombi, others showing marked proliferation of endothelium. Similar arteritic changes were traced throughout the dorsal region and into the cervical and lumbar regions. This case seems, then, to link spinal softening with cerebral, placing it among ischæmic processes rather than inflammatory. Nauwerck says this case is the first in which arteriosclerosis has been shown to be the cause of spinal softening; and the cause of the arterial lesion in so young a subject (twenty-four years) is presumably to be found in a severe attack of typhoid fever, which the patient had three years before.

THE PROGRESS OF CHOLERA IN EUROPE.

DURING the past week cholera has continued in Malta, but with some tendency to diminution in the numbers attacked. In the seven days ending August 29th, there were 38 fresh attacks and 26 deaths, the total number of deaths since the commencement of the outbreak at the beginning of August amounting to about 121. In Sicily the disease is principally centred in the provinces of Catania, Palermo, and Messina, the fatal attacks in the seven days ending August 29th having been 48, 47, and 2 respectively. But accounts of the disease, without mention of the number of cases and deaths, also come from other localities. On the mainland cholera cases and deaths still occur daily at Naples, and there are indications of at least solitary attacks in the vicinity of the city, as, for example, at Castellamare. Fourteen deaths are also reported from Capo Colonne, just to the south of Cotrone in Calabria. The order relating to the prohibition of rags from Italy into this country has now been issued, and it will remain in force until the end of the year.

THE SPINAL NERVE ROOTS.

DR. E. SIEMERLING has, at the instance of Prof. Westphal, made a careful anatomical examination of the structure of the roots of the spinal nerves, with a view to throwing light upon the paths taken by lesions of peripheral parts secondary to disease of the cord—e.g., tabes. His monograph ("Anatomische Untersuchungen über die Menschlichen Rückenmarkswurzeln," Hirschwald, Berlin, 1887) is illustrated by plates which clearly indicate the point that each nerve root contains a variable number of small and of large nerve fibres, the smallest being only 1·3μ and the largest 23·9μ in calibre. The maximum thickness is smaller in the posterior (viz., between 8·0μ and 21·3μ) than in the anterior roots (13·3μ and 23·9μ). The fibres are largest in the anterior lumbar and three upper sacral roots; next come the anterior cervical, posterior lumbar and sacral (upper line); next the posterior cervical and last two sacral roots. The dorsal roots have about an equal proportion of small and large fibres. In the whole series there is about the same relative proportion of large to small fibres in the posterior (viz., 1:1·2) and anterior (viz., 1:1·1) roots. But except in the dorsal region, the number of large fibres is greater in the anterior roots than in the corresponding posterior, which, except in the lumbar region, contain about an

equal number of each variety. The number of large fibres and their thickness correspond to the size of the root, and these fibres are therefore largest and most abundant in the anterior lumbar, cervical, and sacral roots. The fine fibres are for the most part disposed in groups of larger and smaller size between the bundles of large fibres; and the greater the number of small fibres in proportion to the large, so much the larger are the groups in which they are collected. These small fibres are isolated and scattered in the anterior cervical, lumbar, and upper three sacral roots. In the posterior cervical, lumbar, and upper three cervical, as well as in the last two sacral roots, the fine fibres are disposed in small groups. In the dorsal roots they are collected into large bundles. The anterior roots of the cervical and lumbar regions are the first to be fully developed. The mode of research adopted by Dr. Siemerling was to make transverse sections of the nerve roots, to calculate the number of fibres contained in each, and to make careful measurements of them. This was done not only in the adult body, but also in the new-born and the fœtus; so that it must have entailed a great deal of labour, which will, it is to be hoped, be proportionately fruitful.

THE PREVENTION OF SUMMER DIARRHŒA.

WE have on more than one occasion drawn attention to the excellent work which has been done by Dr. Victor C. Vaughan, of the University of Michigan, in regard to the production of the poison tyrotoxicon in milk and cheese, and as to his views that the development of this substance in milk is a frequent cause of choleraic diarrhœa in infants. According to a report recently presented to the State Board of Health of Michigan, the poison has been found not only in milk and cheese, but also in ice-cream and oysters; and pending the publication of the completed document, so much of the report as bears upon the prevention of cholera infantum has been issued for the information of the public. By the poor, as is well known, milk is often not obtained until after it is no longer fresh; it is badly stored until used; and it is on such milk that children are fed. The cleansing of feeding bottles is also less attended to by the poor than by others, and the crusts of decomposing milk which form round the neck of the bottle and in the tube and nipple tend to the rapid decomposition of the contents of the bottle itself. It is also essentially amongst the poor that diarrhœa is so fatal to the infant population. Dr. Vaughan, under these circumstances, lays down certain rules which should especially be borne in mind in the warm months of autumn weather, and which concern the collection and storage of milk. Only the milk of healthy cows should be used, and, to favour healthiness, swill and the refuse of breweries, or fermented food, should not be given to the animals. The pastures should also be free from noxious weeds. Stagnant water, as a drink for milch cows, should be avoided; the animals should not be worried or heated, and their udders should be washed before milking. The milk should be at once cooled down to at least 60° Fahrenheit within an hour; and, in addition to certain usual cautions in methods of delivery, it it laid down that only tin, glass, or porcelain vessels should be used for the storage of milk. It is not known how the poison tyrotoxicon is produced, but it is believed either to be the butyric acid ferment or some ferment which is frequently developed along with the *Bacillus butyricus*, and if milk be inoculated with this and kept at the temperature of the body the poison will appear. The butyric acid ferment often develops in the stomach, and the bacillus grows best in the absence of air. Having regard to these considerations, Dr. Vaughan points out how largely children are allowed to drink milk in the summer months as food or merely to quench thirst, and he believes that when summer diarrhœa occurs, one of the first points to be attended to is to stop the administration of milk in any form. The ferment, he holds, is in the alimentary canal, and to give milk is simply to supply the germ with material for the production of the poison. This no-milk treatment is by no means a new idea, but Dr. Vaughan holds that the main reason for adopting it—namely, the fact that a powerful poison is formed from the putrefaction of milk—has not been understood. He suggests that, under the circumstances referred to, chicken and mutton broths, beef juice, and rice or barley water should take the place of milk.

THE BREATHING SPACES OF OXFORD.

THE recent memorandum by Dr. Thorne Thorne and Mr. Gordon Smith on the overcrowding of houses on area in Oxford, and on the unwillingness of the Local Board to take action with a view of preventing extension of the mischief, has been received with mingled feelings in Oxford. The *Oxford Times* considers that the city has been "somewhat unjustly scandalised"; but it immediately proceeds to indicate how trivial the unjustness must be, by regretting that the inspectors did not deal with what is evidently considered by them as a still greater, indeed "the one actual blot," in Oxford—namely, the "huddling together in mere hovels in narrow passages of hundreds of human beings compelled to live in tenements almost deprived of light and air," and this under sanitary conditions alleged to be as bad as can possibly be. In short, all that can be said for Oxford in this respect is that, in addition to the general crowding together of business houses and courts in the central parts of the city, disgraceful hovels in "unsavoury courts" exist, and that the individual tenements are overcrowded to an extent that is discreditable. The instructions under which the Government inspectors acted seem to have limited them to one point only, but the local press shows how well they might have been extended to other matters also. Almost everyone in the city is taken to task about the Oxford "slums." The Colleges are declared to be great "sinners" who altogether fail to show a good example, and the local authority are accused of not being slow to follow in the retrograde path of the University authorities. In short, it is Oxford as a city and a university town—that is to say, Oxford as a whole—that is to blame. We imagine that this is precisely the contention of those who have recently reported on the city, and it goes for very little, after this admission, to urge in extenuation that people who have to live, eat, and sleep in such crowded spots can, if they have time to take a five minutes' walk, find in the College gardens a large number of "lung spaces."

ODONTALGIA v. NEURALGIA.

THE great difficulty occasionally experienced in diagnosing whether neuralgic pain of the fifth nerve is due to peripheral irritation from disease of the teeth or to some affection of the nerve trunk, made Prof. Victor Horsley's paper on this subject at the Odontological Society of considerable interest, especially to dental surgeons. The principal points of distinction may be summed up under the following heads: 1. Trophic changes, such as muscular wasting in the parts to which the pain is referred, chronic congestion, or alternating dilatation and constriction of the bloodvessels, point to mischief in the trunk of the nerve. 2. Alterations in sensation, anæsthesia or hyperæsthesia of the skin, especially when gently touching the skin causes extreme pain, while firm pressure causes no pain at all, are, he believes, never due to dental irritation. 3. The origin and character of the pain are sometimes useful as a means of diagnosing the two conditions. When the pain begins in the skin or bone, and subsequently is referred to the teeth, the probability is that

the lesion is in the nerve trunk; if it is stated to begin in the teeth, it may or may not be due to them. Professor Horsley expressed the view that *constant* pain is in most cases of peripheral origin, whereas intermittent pain is due to trouble nearer the nerve centre; but this is opposed to the experience of most dental surgeons, intermittent pain being a frequent accompaniment of dental disease. Lastly, the existence of "tender spots" along the course of the nerve or its branches is generally an indication of irritation along the whole course of the nerve, but occasionally occurs in cases of peripheral irritation.

PROFESSOR PEL ON ACUTE RHEUMATISM.

IT has been remarked by Professor Pel of Amsterdam that the cases of ague and rheumatic fever which have been admitted into his clinic during the last few years have borne an inverse ratio to one another in point of numbers. Thus, in 1875, there were 10 cases of ague and 22 of rheumatic fever; in 1876, 14 of ague and 9 of rheumatic fever; the number of cases of ague then rose very high, being for the next five years 31, 40, 41, 31, and 23 respectively; while the rheumatism cases were comparatively infrequent, the numbers being 7, 10, 11, 11, and 9. In 1882, the ague cases numbered 9, and the rheumatism cases 10. The latter then again began to rise, being for the next three years 42, 43, and 44; while the ague cases numbered only 12, 10, and 14. The influence of climate on rheumatism has been touched upon by various authors, one of the best known papers on the subject being that of Dr. Gabbett, which was published in THE LANCET of Oct. 20th and 27th, 1883. Edlefsen also communicated an important paper to the Wiesbaden Congress in 1885, showing that the mortality from acute rheumatism bears some relation to the rainfall. Professor Pel finds that rheumatism often attacks a number of persons on the same day, and on comparing these "rheumatism days," as he calls them, with meteorological records, he has observed that they are usually days on which little or no rain has fallen. They do not occur during long rainy periods, and the temperature only seems to have any effect when its fluctuations are considerable. He has also remarked that from five to ten days before a "rheumatism day" a considerable downfall of rain has usually occurred. He has a strong belief in the specific nature of rheumatic fever, and in support of this points to its resemblance to other specific fevers in the manner of its invasion, in its liability to affect serous membranes, in its epidemic character, and in the special characters marking particular epidemics. He also narrates the case of a woman just recovered from typhoid fever and double pneumonia, who was seized with rheumatic fever on the same day that five other patients suffered from relapses. She occupied a bed between two patients with acute rheumatism. It only wants, he thinks, the discovery of the specific micro-organic cause of the disease in the inflamed serous membranes to render the present presumption of its specific origin a certainty.

URETERO-GENITAL FISTULÆ.

DR. C. D. JOSEPHSON describes in the reports of the Sabbatsberg Hospital, Stockholm, a case of uretero-uterine fistula, in which he performed nephrectomy with satisfactory results. The patient was twenty-four years of age, and the confinement was her third. Forceps were employed. During the puerperal period she had fever, and there was some effusion into the pelvis. She also suffered from incontinence of urine, while at the same time she was able to micturate in a normal manner. The left ureter was found to open in the cervix uteri. Dr. Josephson discusses this case, and twelve similar cases which he has found in medical literature. He suggests the possibility of a sudden rupture during labour either when the ureter has been fixed to the cervix uteri by a previous inflammation, or when the tissues have become friable or incipient gangrene has occurred owing to the pressure of the child's head. The fistula may, however, be established during the puerperal period, owing to the formation of an abscess or to a gangrenous condition of the tissues. The pathognomonic signs of the existence of this rare accident are a constant dribbling of urine, while at the same time it is passed in an ordinary manner, and especially the possibility of filling the bladder with a coloured liquid without producing any colouration in that which runs away involuntarily. The treatment consists either in the performance of nephrectomy or in the occlusion of the vagina. Uretero-vaginal fistulæ, of which twenty-three cases are cited, are divided into four groups. 1. Simple fistulæ (uncomplicated with vesico-vaginal fistulæ) caused by a labour under conditions similar to those which give rise to uretero-uterine fistulæ. 2. Those complicated with vesico-vaginal fistula. 3. Those caused by operative procedures, such as the opening of an abscess, the excision of the cervix, or the total extirpation of the uterus. 4. Congenital fistulæ. The symptoms are similar to those of uretero-uterine fistula. The treatment consists in a complicated plastic operation as practised by Simon, Bandl, Schede, and others. When this operation is impracticable, nephrectomy or occlusion of the vagina should be performed. Dr. Josephson suggests that in these cases it might be possible to attempt the formation of an artificial urethra, consisting of a fistulous canal betwen the interior of the bladder and the urethra above the uretero-vaginal fistula.

INDUCTION OF PREMATURE LABOUR IN THE BERLIN CLINIC.

FROM a graduation dissertation on artificial induction of premature labour by Dr. Johannes Panienski, founded on the practice of the University Clinic for Women in Berlin, we learn that in the ten years 1877-1887 this operation was performed twenty times for contracted pelvis. In 10 of these cases there was a flat rickety pelvis, with a conjugate diameter of from 8 to 7 centim.; in one case, indeed, it only measured 6·7 centim.; and here, notwithstanding that the transverse diameter of the fœtal cranium was 8·5 centim., both mother and child did well. As induction of premature labour is undertaken in cases of contracted pelvis chiefly with the view of saving the child, it is noticeable that only 3 of these 10 children lived, but that out of 12 children previously born of the same women only one had lived. Labour was induced twice in cases of flat, non-rickety pelvis with conjugate diameters of 9½ and 8½ centim. respectively; in the first case, because the 5 previous children had all presented transversely, 4 of them being still born. In both cases of induced labour the children lived. In 2 cases there was a generally contracted pelvis, with a conjugate diameter of 7¼ centim. In 6 cases there was an oblique contracted pelvis, with a conjugate diameter of 8 centim., 5 of these being in the same woman. Of the 20 cases, 2 were primiparæ; the 18 others resulted in the deaths of 9 children—i.e., 50 per cent.; whereas of the 26 children of which the same women had been previously delivered at term, 23, or 88 per cent., were stillborn, so that we may consider that operative interference saved 38 per cent., reckoning those as living which were alive when the mother left the clinic on the eleventh or fifteenth day. The induction of labour was carried out under the strictest antiseptic precautions. Seventeen of the 20 women passed through the puerperal period in a perfectly normal manner; one died from air embolism; one showed signs of septic mischief, and one suffered from slight perimetritis—both these, however, completely recovered. The method employed was that of Krause, with this modification—viz., that a bougie

was used instead of a catheter. In one case an attempt was made to bring about the labour by a subcutaneous injection of pilocarpine, but this proved useless, even though hot vaginal douches were subsequently administered; so recourse was had to the bougie. The action of the bougie is prompt and certain, though not alike in all cases. The time from the introduction of the bougie to the birth of the child varied from 6 hours to 16 days, the average time being 79 hours. The first pains were felt in from 1½ hours to 5 days after the operation, the average time being 24 hours. The duration of the pregnancy varied from 32 to 36 weeks. With regard to diseased conditions of other organs, labour was induced 11 times, 4 times for kidney affections depending on pregnancy, 6 times for chronic nephritis, and once in a case where there was an uncompensated cardiac affection, which gave rise to very serious symptoms—viz., almost complete blindness from albuminuric retinitis; a considerable amount of ascites with hydrothorax and enormous œdematous labia, together with paroxysms of dyspnœa. In three of the kidney cases there was eclampsia. The results were encouraging, as all 11 women recovered. The bougie was employed 9 times, puncture of the membranes twice. Pilocarpine was first tried on the case with œdema; it produced sweating, but entirely failed in inducing pains.

HÆMOPTYSIS TREATED BY INJECTIONS OF ERGOTIN.

M. GUELLIOT publishes in a Rheims medical journal some notes of a case in which he injected ergotin into the lung. The patient had been suffering for two years from daily hæmoptyses, which had been treated in various ways, but unsuccessfully. Subcrepitant râles could be heard in considerable numbers three fingers' breadth above the liver in front. The man had had pleurisy twenty-two years previously. His general appearance was good, and no tubercle bacilli could be detected in the sputum. M. Guelliot determined to try the effect of injections of ergotin in glycerine into the affected region, employing the strictest antiseptic precautions. After a few drops of the solution had been injected the patient brought up sputum of a distinctly sweetish taste, showing that the injected liquid had been absorbed. The injections were continued, the quantity of liquid introduced being gradually increased. The hæmoptysis began to diminish. The treatment had, after a time, to be stopped, as signs of broncho-pneumonia developed. Ultimately the patient died. The base of the right lung was found to be in a state of grey hepatisation, and there were pleuritic adhesions round all the lower half; also some tubercles at the apex. The interesting point about the case is the fact that after fifteen or twenty ergotin injections the hæmoptysis diminished in a remarkable degree.

SURGICAL SCARLET FEVER.

HOFFA (Volkmann's Sammlung, 292, abstract in *Centralb. f. Bacteriol.*, Bd. ii., No. 8) says that cases of so-called "surgical scarlet fever" fall under one of four categories. They may be—1st. Cases of congestive erythema, clearly due to vaso-motor disturbance. 2nd. Toxic erythema, like the erythematous rashes due to drugs, and depending upon absorption of products of tissue destruction. 3rd. Septic or pyæmic rashes, as the outcome of general septic infection, and probably due to capillary embolism of micro-organisms. 4th. True scarlatinal infection, as verified by one or other of the concomitant symptoms, angina, swelling of submaxillary glands, nephritis, and desquamation. To describe the scarlet fever as "surgical" the infection must occur at the wound, and the exanthem spread therefrom over the body. Such cases, Hoffa states, are rare; and he details the only two which have come under his personal observation. One was a case under treatment for rupture of the urethra with extravasation of urine, which was doing well, until on the ninth day a scarlatinal rash appeared, and spread from the wound over the abdomen and buttocks. It was accompanied by sore throat, and disappeared in a week, but the patient succumbed from cardiac degeneration and acute nephritis. The other case was one of fracture of both femora, and a wound extending into the rectum; was attacked four days after the former case, and recovered with marked desquamation. Streptococci (like the S. pyogenes and the erysipelas coccus) were cultivated from the skin and blood of the first case; but inoculation experiments gave no result.

HYDROCHLORATE OF APOMORPHINE.

THIS useful salt has been extensively tried by Dr. Stocquart of Brussels as a remedy for certain kinds of cough, and he speaks highly of its value. The kind of cough in which it has proved most successful is a distressing and frequent hacking unattended with expectoration, or with exceedingly difficult expectoration, and the improvement of the patient's condition is usually effected in a few days. The drug is as a rule well borne, although a few individuals manifest a special susceptibility to its action, and rarely nausea, colic, and diarrhœa result from its employment. The dose is a minute one, only three or four milligrammes of this alkaloid being given in water in the twenty-four hours; and as the solution rapidly alters by keeping, it is advised to prevent its decomposition by the addition of a few drops of hydrochloric acid, which does not interfere with the therapeutic effects.

URÆMIC HEMIPLEGIA.

GENUINE hemiplegia, or loss of power of the will to move the limbs on one side of the body, does occur in uræmia, but only rarely. As a rule, hemiplegia associated with uræmia is due to a gross vascular lesion. But cases like one described by Dr. Wiglesworth in the July number of the *Liverpool Medico-Chirurgical Journal* prove the dependence of hemiplegia during uræmia on some other cause than a coarse lesion. At the same time, we are not satisfied with the explanation of MM. Chantemesse and Raymond, who, with Dr. Wiglesworth, consider that a serous effusion due to Bright's disease may compress the cerebral arterioles, already weakened by degenerative changes, and so cause paralysis, for it is possible that the same local agency which causes clonic spasms may, if acting in stronger force, cause paralysis; we mean that the same poison may directly cause local loss of function, without the mechanism of a serous effusion having any necessary action in the causation.

GASTRIC ATROPHY AND PERNICIOUS ANÆMIA.

IT may be remembered that to Dr. Fenwick we owe the discovery that certain cases of progressive anæmia depend upon, or at any rate are associated with, atrophy of the gastric mucous membrane. Since then other writers upon pernicious anæmia have described the same lesion in the stomach—one such case recorded by Drs. Henry and Osler being contributed last year to the *International Journal of Medical Science*. In that case there was complete absence of the peptic glands, and gastric digestion was wholly in abeyance. The subject came up for discussion at the recent meeting of the Association of American Physicians (*Boston Medical and Surgical Journal*, No. 26). Dr. Kinnicutt of New York related two cases, in which the typical symptoms of pernicious anæmia were well marked. In each case the only organ found to be affected was the stomach. Its lining membrane was smooth, and microscopic examination showed a great deficiency of the gastric tubules, which

were either wholly wanting or else existing only in their more superficial portions. Dr. Delafield regarded the lesion of the stomach as secondary, and pointed out that in many other diseases leading to starvation the symptoms of pernicious anæmia are not developed. Both Dr. Henry and Dr. Osler, who also spoke, held that there is a group of cases, clinically indistinguishable from other cases, of pernicious anæmia, in which gastric atrophy is the primary and essential lesion.

INTUBATION OF THE LARYNX.

IN the course of a paper upon Intubation of the Larynx (*Berl. Klin. Wochensch*, No. 32), Dr. Caillé of New York states that the operation has been performed in 429 cases, with 114 recoveries, or about 26 per cent. The majority of these cases were diphtheria, and more than half were children of three years old and under. It is only fair to state that with improvements in instruments better results have been obtained by O'Dwyer than in his earlier cases, so that as an operation it can hardly as yet be compared with tracheotomy. The advantages of intubation are stated by Dr. Caillé to be—1. That it obviates the necessity of administering an anæsthetic, and thus can promptly relieve dyspnœa. 2. There is no such prolonged after-treatment such as tracheotomy needs. 3. No wound is inflicted as a rule, and therefore no path laid open for infection. 4. The consent of parents to the operation is easily obtained. Dr. Caillé looks to far better results being obtained in the future than hitherto, and urges that especial care should be taken to prevent pneumonia from entrance of foreign matter (*Schluck-pneumonie*), and to this end the tube must be such as not to hinder deglutition. The paper enters into full details of the procedure and the accidents that may arise.

DR. MAX ON RHUS AROMATICUS IN ENURESIS.

DR. MAX, physician to the Children's Infirmary, Brussels, has recently made trial of a remedy recommended by Dr. Ellis, in his work on the Diseases of Children, for incontinence of urine. After referring to the various causes and the different specific forms of treatment of this affection, he remarks that he has never seen the remedy referred to—viz., rhus aromaticus—recommended, except in Dr. Ellis's book, and that he experienced some difficulty in obtaining it, which he ultimately, however, succeeded in doing from the New York Botanic Garden. A tincture was prepared by macerating 200 grammes of the bark in 1000 grammes of spirit at 80° C. This was prescribed in several cases in quantities of from twenty to fifty drops per diem, taken in three doses—i.e., about seven to seventeen drops three times a day. The results were in the majority of cases most satisfactory. In no case was any untoward effect produced.

HEMIPLEGIA IN CHILDREN.

THE chief cause of hemiplegia in children is believed to be embolism, according to the clinical lecture given by Dr. Abercrombie at the Hospital for Sick Children, and published in a medical contemporary. His arguments are not altogether unassailable, and consist chiefly in the observations made in the post-mortem room, that the lesions of atrophy and sclerosis of the brain are mainly confined to that area which happens to be "motor" in function and mainly supplied by the middle cerebral arteries, which are, all will admit, more frequently the seat of embolism than other cerebral arteries. Whilst admitting the general truth of the statement that the "motor" areas are more commonly the seat of sclerosis than other parts of the brain, we cannot subscribe to the statement made by Dr. Abercrombie "that the sclerotic changes are not found to any great extent elsewhere in the brain than in the motor area." He carefully, however, proceeds to say that the sclerosis is not necessarily limited to the motor area; but where not so limited, it is generally found in adjoining convolutions, and here comes an assumption "as if it had spread there." We have nevertheless seen sclerosis freely scattered about, just as might fairly be expected on the hæmorrhagic theory of its origin, or, we may remark, on the theory of arterial sclerosis due to syphilis, which cause is indeed allowed by the author to be operative in a certain proportion of cases. The view which goes by the name of Strümpell's hypothesis does not appear to find much favour in this country.

"LUPUS" OF THE VULVA.

IN the August number of the *American Journal of Obstetrics* Dr. Grace Peckham contributes a case to this vexed question, together with a discussion of the whole subject, and an analytical table of forty-eight collected cases. The paper is illustrated by several reproductions of Huguier's drawings, and by a coloured picture of the author's case. The paper leaves the subject much where it was. Microscopical examination seems to be capable of little more than the exclusion of epithelioma, carcinoma, and sarcoma, and to be practically incapable of differentiating between "lupus" and syphilis, around which question the controversy centres. We are surprised that the author, in a paper published in August, 1887, should make no mention of a series of highly important papers by Dr. Matthews Duncan on this subject, read before the Obstetrical Society of London on May 6th, October 7th, and December 2nd, 1885, published in the Transactions of the Society for the year 1885, and reported in abstract at the time not only in THE LANCET, but in the *American Journal of Obstetrics*. Without analysis and criticism of these the paper misses much of its value. The question in most of these cases is—"lupus" or syphilis?

ARSENIC AND MUMMIFICATION.

PROFESSOR ZAALJER, of Leyden, has recently published a number of observations he has made on the bodies of persons who have been poisoned by arsenic. He finds that the degree of putrefaction of bodies containing arsenic is chiefly determined by the state of the temperature of the air before they were buried. In the grave the putrefactive process progresses at various rates, being sometimes slow and sometimes rapid. Having examined a large number of cases, he comes to the conclusion that the arsenic which had been administered had exercised no effect whatever on the rate of decomposition, or on the mummification so that the so-called arsenical mummification has really no existence whatever—at all events, in cases where poisonous doses of arsenic have been taken. He asserts, therefore, that mummification is absolutely useless as medico-legal evidence of poisoning.

A LARGE NASAL CALCULUS.

DR. NOLTE reports, in the *Allgemeine Medicinische Central Zeitung*, a case of nasal calculus occurring in a woman of forty. The patient came to him complaining of a sore in the mouth accompanied by considerable fetor. On examination, at the centre of the junction of the hard and soft palates, there was found a small round ulcer with eroded edges, in the middle of which a rough, somewhat movable object was felt. The hardness of the body and the note on striking it suggested a nasal calculus, which, on account of its heaviness and its rough surface, had by degrees bored through the palate. For two years the patient had perceived a peculiar and not easily described feeling in the nose. To remove the stone, Dr. Nolte made a longitudinal incision, and, after enlarging the opening, extracted a neuriform nasal calculus of the size of a pigeon's egg, with

several large and small processes. The fetor from the mouth soon disappeared, and the patient was well in eight days. The stone was analysed by Herr Ekarius, and found to contain the following substances: phosphate of lime, carbonate of lime, phosphate of ammonia and magnesia, iron, potash, and traces of soda, also indurated nasal mucus.

THE HEALTH OF THE CROWN PRINCE.

THE Crown Prince of Germany has, we understand, derived great benefit from his stay in the Highlands. The disposition to attacks of sudden and rather severe congestion of the mucous membrane, which has been a feature of the malady throughout, is less marked, and the catarrhal attacks much less severe. Vocal fatigue is also much less pronounced, and the general health is all that could be desired. His Imperial Highness has slightly prolonged his stay in London in order to avoid crossing the sea in the tempestuous weather of the last day or two, as Dr. Morell Mackenzie considers that the infirmity which even Princes on Royal yachts cannot escape might have an injurious effect on the throat. Mr. Mark Hovell will accompany his Imperial Highness to the Southern Tyrol.

SCARLET FEVER IN LONDON.

THE demand for hospital accommodation for cases of scarlet fever in London is still increasing, as many as 132 patients suffering from this malady having been admitted into the hospitals of the Metropolitan Asylums Board during last week. Nevertheless, the mortality from this disease is much below the average of the last ten years, the number of deaths registered in the thirty-third week of the year being but 23, as compared with an average of 33·9. Some proportion of this demand is doubtless due to the increasing confidence which is felt by all classes in the treatment of patients in the hospitals of the managers; but this will not entirely explain the large number of admissions to hospital, and the fact remains that a widely spread epidemic of mild scarlet fever exists in all parts of the metropolis. The question has been raised in the daily press as to whether this may be due to an infective milk supply. The distribution of the cases appears to negative this suggestion, although it is possible that earlier cases due to this cause might soon be masked by the rapid development of the disease.

IT is announced from Hamburg that a severe outbreak of trichinosis has just occurred there. In one house alone nine persons are suffering from the disease. The authorities have seized a number of living hogs, as well as a quantity of pork, believed to be infected with the dangerous parasite. The outbreak is stated to be due to the German habit of eating uncooked ham, and often pork, in a half-raw state.

THE official returns as to vaccination show that in Leicester during the past twelve months, out of 5000 births only 550 children were vaccinated, of whom 39 were vaccinated by private medical men, the remainder being vaccinated at public vaccination stations.

A CASE of scurvy being reported on board the sailing ship *Castle Roy* on reaching the Victoria Dock from Calcutta, the port sanitary authority of London has ordered an inspection of all the ship's provisions.

IN Southern Russia, hydrophobia, during the past few weeks of abnormally hot weather, appears to have become epidemic; and the Pasteurian Hospital at Odessa is overwhelmed with cases.

GERMAN Medical Science has suffered a severe loss by the sudden death of Professor Möller at Königsberg.

BACTERIOLOGICAL RESEARCH.

THE study of animal and vegetable micro-parasites—protozoa, bacteria, and the more highly organised micro-fungi—has created a marvellous activity in the field of pathological inquiry. In nearly all the large medical and veterinary schools on the Continent, laboratories have been established or provision in some way made for instruction and research in bacteriology. As a result, the credit of the discoveries which have been made falls almost entirely to French and German investigators. And so rapidly has the new science progressed, that the text-books of pathology have been rewritten; the literature on the subject itself includes many volumes and a mass of scattered papers in scientific and medical journals; and even periodicals are now issued which are devoted almost, if not entirely, to pathological mycology. In this country it is only quite recently that the medical and veterinary professions and the public generally have been thoroughly aroused to a sense of the necessity for paying more attention to pathogenic micro-organisms. The agriculturist and the breeder of stock have been led to appreciate how seriously these micro-parasites affect the welfare of their crops and animals respectively. The public has awakened to the knowledge that human beings are not only liable to be directly attacked, but they may also fall victims through the medium of the lower animals. A wide field for investigation is thus open on the lines of Pasteur's valuable researches on the silkworm disease, fowl cholera, anthrax, and rabies, and of Koch in his brilliant researches in connexion with the etiology of tuberculosis. Several investigators in this country have taken up the question of the transmission of diseases from animals to man, such as tuberculosis, scarlet fever, and diphtheria. But there is ample room for many more investigators in the same and similar fields. There is both much to be done and to be undone. The first necessity is the instruction of those who wish to undertake bacteriological researches, so that they may be competent to start as independent investigators. The study requires a practical knowledge of the recent advances in microscopy and of the biological methods which are essential for keeping the organisms under continuous observation, and for gaining an insight into their life-history; while pathological histology, chemistry, and experimental pathology must all be made use of in endeavouring to determine the exact part micro-organisms play in the production of morbid phenomena. Such work, to be thoroughly and completely done, is almost of necessity beyond the reach of those who are otherwise actively engaged in the practice of their profession. Like the work of the professional analyst or any other expert, it must fall almost entirely into the hands of specialists. Access to a laboratory equipped with all the necessary apparatus, incubators, sterilisers, &c., is essential, while help from the laboratory assistants in the purely technical details, such as the preparation of the nutrient media, is necessary to effect a vast saving of time. But apart from undertaking laborious original researches, a practical acquaintance with the subject is of unquestionable value. The detection of the tubercle bacillus in the sputum dispels any doubt which may exist as to the nature of the case in question. The detection of the anthrax bacillus with equal certainty enables a diagnosis to be made in a case in which there might otherwise be considerable difficulty in arriving at a definite conclusion. The detection of the characteristic fungus in actinomycosis reveals at once the nature of a tumour which has been, and often still is, described by a variety of names which convey no idea whatever of the real character of the disease. And yet how few practitioners there are in either the medical or the veterinary profession who are acquainted with the appearance of these organisms and the technique for rapidly demonstrating them under the microscope. "A little knowledge is a dangerous thing" is a saying which applies very forcibly to bacteriology. It is not enough to be simply aware of the fact that a particular micro-organism is to be found in a disease; its characteristics, especially its microscopical appearances, must be thoroughly familiar to the observer. Septic bacilli, for example, may readily be found in the blood of the spleen some hours after death, and the untrained practitioner on the look-out for "rods" may only too readily jump to the

conclusion that he has encountered a case of anthrax. The need for practical instruction as well as for facilities for original research has been increasingly felt during the past two or three years. In another column we have given particulars of the new laboratory at King's College, by which this want will be supplied. We hailed with satisfaction the announcement last spring that arrangements had been made for a course of lectures and practical instruction in Bacteriology, or what might less conveniently but more correctly be termed Human and Comparative Micro-parasitology. The applicants for admission, consisting principally of medical officers of health from various parts of the country and veterinary surgeons, were very numerous, and several had to be refused owing to the limited accommodation. To meet the demand, the Council of King's College, with commendable foresight, have set aside one of the largest lecture rooms in the College to be equipped as a bacteriological laboratory, while two extra rooms are in process of erection for the Professor Superintendent and his assistants. Courses of instruction, with lectures, will be given in November and April, and there will be ample accommodation all the year round for those wishing to work privately or to undertake original researches. We are glad to think that London will at last be provided with a laboratory which will bear comparison very favourably with Professor Koch's laboratory in Berlin.

WOMEN AND LIFE ASSURANCE.

To say that the world owes the modern system of life assurance to women would be only a strong way of putting what is an undeniable and even commonplace fact—namely, that the great majority of life assurance contracts are entered into for the benefit of women, and under a sense of the duty which a man on whom a wife, a sister, or a mother is dependent, owes her, to provide against leaving her destitute in the event of his premature decease. The scheme of life assurance enters, indeed, in a vast variety of ways into our modern social relations. It makes numberless business arrangements possible which without it would be impracticable by reason of the life risks involved, and serves most usefully to cure, or at least reduce, the hardships growing out of unwise settlements and other unfortunate dispositions of property. But, taken altogether, these do not constitute probably even any considerable proportion of the vast aggregate of something like £430,000,000, which represents the collective contingent liability of the ordinary life assurance companies at present doing business in the United Kingdom. "Remember your wife and family" is the admonition with which the life assurance agent clinches his argument in ninety-nine colloquies out of a hundred; and it is a consideration which generally and properly prevails. He is but a poor sample of humanity—and, happily, exceptional—who can either consider with equanimity or dismiss from his thoughts the prospect of ruin in a home which, maintained in comfort by his own exertions, is unprotected against the pecuniary disaster of his decease. Thus female, or, to speak more generally, domestic, influences have been, and always will be, the principal "exciting cause" of life assurance.

But women, who have taken so preponderating a share heretofore in the benefits of life assurance may be expected in future to acquire a new interest in it, not only as beneficiaries, but also as life-risks. It is the obvious outcome of existing conditions. Never in our national history has the number or proportion been so great as now of women who enjoy separate incomes, whether derived from property or the fruit of their own toil. Where there is property, there, of course, its responsibilities will fall, and thus arise in relation to a large proportion of the female population the very same conditions which have given occasion for life assurance in the past. The practice will speedily follow upon the heels of the occasion, and there can be no doubt that the near future will witness a very large extension of life assurance operations along these lines. The omens are indeed so clear that both the Legislature and the companies have laid themselves out to cultivate this field. The Married Women's Property Act of 1882 gave to women the power to effect trust policies similar to those by which under the Act of 1870 married men had been able to put the proceeds of a life assurance policy beyond the reach of creditors, and in many ways the representatives, both in the press and in society, of the life assurance interest have been manifesting an awakening sense of the value for business purposes of the female life.

The taking of a new departure is not, however, altogether as simple as might be supposed. We can well imagine that women, as a rule, are not quite so easily accessible as men to the life assurance agent; but, be that as it may, it is certain that the female life has quite a distinct status from the male, and should theoretically be provided for by different tables. To some extent this is recognised by the insurance companies, and provision is made accordingly. It is well known that observation shows the female to be more tenacious of life than the male, and this advantage becomes more marked as years advance. Indeed, throughout the childbearing period the female community is at a relative disadvantage, and it is not until about her fiftieth year that the woman begins to enjoy an assured vital superiority over the man. Such things need of course to be taken into account, and it must be admitted that the materials do not at present exist for determining with any certainty whether or not the strain of "business" life is prejudicial to the female constitution. There are some grounds for suspecting that the superior longevity of elderly women as compared with men of equal years would disappear if the two classes could be made to exchange conditions of life; but of that we shall know more as the science of vital statistics becomes more complete. At present an opinion on that point must be very largely conjectural.

To a certain extent, then, the actuaries in providing for female life assurance are, for the present, condemned to work in the dark. But this is not so in regard to the adaptation of what materials are at hand to the special needs of a female class. It is doubtless true that the call for a new development arises out of the growing assimilation of female to male requirements. But the assimilation is and can only be partial. Speaking broadly, it may be said that while the principal object and use of life assurance must in all cases be the provision against premature decease, the subordinate purpose of making provision for old age by this means is relatively much more important in the case of a woman than of a man. Hence deferred annuities and benefits of that class assume an importance in this connexion quite distinct from what they have in other circumstances. In this and other ways it is possible so to mould and adopt a scheme of life assurance as to give it a wholly new character, and one fitted for a new career. Changes and adaptations of this sort are being gradually, and, as we think, very usefully, made by those who manage life assurance business.

With regard to a medical examination, we would remark that it is often much more formidable in imagination than in reality. Many persons, both men and women, shrink from it as they might from a serious surgical operation. Of course, this is simple folly. The underlying fear, no doubt, is that something may be found "wrong." It certainly needs but little philosophy to see that this is not only a weak, but also a mischievous apprehension. If anything *is* "wrong," the sooner the discovery is made the better; and, on the other hand, what happens in the very great majority of cases is that the proposer gets a clean bill of health, and goes away feeling as if he had renewed his lease of life. The result in any case is well worth the small amount of time and inconvenience involved in undergoing the examination. In truth, the chief part of an examination for life assurance consists usually in question and answer. The nature of the physical examination must, of course, in a large measure depend upon the indications afforded by the appearance of the proposed life and the facts elicited by the oral examination. This is, indeed, a matter in respect of which much must, and very much ought to be, left to the discretion of the examiner. The fact is one which the directors of insurance companies would do well habitually to bear in mind. The schedules of questions which they commonly furnish to their medical examiners usually err upon the safe side, that is to say they are apt to be over-full of detail. This must be so. They are intended not only to bring every possible point to the examiner's mind, but also in many cases to take the measure of any lesion that may be discovered. Hence the very formidable proportions to which some of them extend. Such exuberance does not matter so long as it is clearly understood that the company respects the examiner's discretion, and will consent to forego details which he,

having the proposer before him, may judge to be immaterial. Insistence upon the minutiæ of a report, while it does not add to the value of the result obtained, does add seriously to the irksomeness of the examiner's duty, and puts a real, though perhaps somewhat imaginary, difficulty in the way of proposers. Remove all unnecessary obstacles is obviously the present watchword of the insurance companies. And they are right. Vast as are their operations, they have still a large field to conquer, and, at any rate so far as ladies are concerned, they will find it to their advantage to repose a large confidence in the practitioner who is charged with the responsible and delicate duty of the medical examination.

THE INTERNATIONAL MEDICAL CONGRESS.

IN general session of the forthcoming Congress, the following addresses will be delivered:—Dr. Austin Flint of New York, "Fever: its Causes and Rational Treatment"; Dr. Mariano Semmola of Naples, Italy, "Bacteriology, and its Therapeutical Relations"; Dr. P. C. Unna of Hamburg, Germany, "The Relations of Dermatology to General Medicine"; Dr. C. Fielding Blandford of London, England, "The Treatment of Recent Cases of Insanity in Asylums and in Private Houses"; Dr. A. Lutaud of Paris, "The Influence of Discoveries of American Surgeons on the Development of Gynæcology in Europe"; and Dr. Neudorfer of Vienna, "The Military Medicine of the Present and that of the near Future." The session is so organised that general meetings will be held on each morning of the week, and meetings of the sections during the later hours of each day.

Diseases of Children.

The following is the complete programme of this Section:—Professor J. Lewis Smith of New York, Chairman. The Section will hold its first session at 3 P.M. Monday, Sept. 5th, when the following papers will be presented:—1. An Investigation to determine whether the Absence of Sewage and of Water Pollution diminishes the Prevalence and Severity of Diphtheria, by Dr. C. W. Earle of Chicago. 2. Rate of Growth in American and British Children, and its Bearing on the Investigation of Diseases, by Professor W. Stevenson of Aberdeen, Scotland. 3. Diseases of Faulty Habit, by Dr. James F. Goodhart of London, England. 4. Deleterious Results in Children of a Narrow Prepuce and Preputial Adhesions, by Professor L. A. Sayre of New York.

At Tuesday's sessions the following papers will be read: 1. The Milk Supply of Cities; Adulterations and Modes of Detecting Them, by Dr. Cyrus Edson of New York. 2. The Nutrition of Infants, by Professor Albert Leeds of Stevens Institute, Hoboken, New Jersey. 3. The Use of Cow's Milk in the Feeding of Infants, by Professor W. C. Vaughan, University, Michigan. 4. Anatomical Characters of Membranous Croup as observed in fatal cases in the New York Foundling Asylum, by Dr. W. P. Northrup. 5. Remarks on Tubage of the Glottis, and the manner in which it was practised in France, by Dr. E. Bouchet of Paris. 6. Intubation of the Larynx, with demonstration on the living subject, by Dr. Joseph O'Dwyer and Dr. Dillon Brown of New York. 7. Intubation *versus* Tracheotomy in the Treatment of Croup, by Professor F. E. Waxham of Chicago.

At Wednesday's sessions the following papers will be read:—1. The Treatment of Strumous Glandular Enlargement of the Neck, by Dr. Martin Oxley of Liverpool, England. 2. Infantile Convulsions in connexion with after Neurotic Tendencies, by J. A. Coutts of London, England. 3. A Study of some of the Bacteria found in the Dejecta of Infants affected with Summer Diarrhœa, by Dr. W. D. Booker of Baltimore. 4. Hallucinations in Young Children, by Dr. E. Bouchet of Paris. 5. Cerebral Irritation in Children, by Dr. Jules Simon of Paris. 6. Treatment of Diphtheria by Antiseptic Sprays, by Dr. Grancher of Paris. 7. Treatment of Physiological Derangements in Children due to Over-feeding, by Dr. Cadet De Gassicourt of Paris. 8. Notes of Malaria of Children in Brazil, by Dr. Moncorvo of Rio de Janeiro.

At Thursday's sessions the following papers are announced:—1. Observations regarding True Pneumonia in Children, by Professor A. D'Espine of Geneva, Switzerland. 2. Paper by Professor Oscar Wyss of Zurich, Switzerland. 3. Some Observations on Headaches in Children, and their Relation to Mental Training, by Dr. W. H. Day of London, England. 4. Scarlatinal Nephritis from a Clinical and Pathological Standpoint, by Dr. Henry Ashley of Manchester, England. 5. On the Pathology of Scarlatinal Nephritis, by Dr. Frank Grauer. 6. The Contagious Principle of Pertussis, by Professor A. Vogel of Munich. 7. The Nature of Whooping-cough, and its Antiseptic Treatment, by Dr. Moncorvo of Rio de Janeiro. 8. On Acetonuria in Children, by Dr. A. Baginsky of Berlin, Germany. 9. Hereditary Syphilis and Rachitis in Brazil, by Dr. Moncorvo of Rio de Janeiro. 10. Marasmus, by Dr. J. N. Love of St. Louis, Mo.

At Friday's sessions the following papers will be read:—1. The Treatment of Lateral Curvature, by Dr. J. Knight of New York. 2. Anchylosis of the Knee-joint in the Straight Position by Excision as a Remedy for the Atrophy and Deformity following Acute Poliomyelitis of Childhood, by Professor Stephen Smith of New York. 3. Hip Disease, Practical Points in its Treatment, by Dr. A. J. Steele of St. Louis, Mo. 4. Forcible Correction of Contracted Knee-joint, by Dr. E. W. Bradford of Boston, Mass. 5. Progress of Orthopædic Surgery, by E. Noble Smith of London, England. 6. Section of Contractured Tissues essential before Mechanical Treatment can be effectual, by Professor Lewis H. Sayre of New York. 7. The Scope and Limitations of Orthopædy, by Dr. C. F. Taylor of New York.

Anatomy.

The following is a list of papers proposed to be read in the Section on Anatomy:—The Bladder, by Reginald Harrison, F.R.C.S., &c., Liverpool, England. The Wolffian Bodies, by Wm. Mitchell Banks, M.D. Ed., F.R.C.S., &c., Liverpool, England. A paper (subject to be announced), by Professor E. Frommann, Jena, Germany. The Intercranial Nerve Tracts in the Light of Atrophy Methods of von Gudden, by E. C. Spitzka, M.D., &c., New York. On the Development of the Torus Longitudinalis in Teleosians and its Homology in higher Vertebrates, by Professor Rabe Rückard, M.D., &c. On the Surgical Collateral Branch of each of the Main Arteries of the Human Body, by Edward Souchon, M.D., New Orleans, La. A Contribution to the Pathology of Hip Disease, by Milton Josiah Roberts, M.D., New York. Anatomy of the Male Urethra and its relation to Stricture, by E. R. Palmer, M.D., Louisville, Ky. Does a Relationship exist between Anomalies of the Visual Apparatus and the so-called "Neuropathic Tendency?" by A. L. Ranney, M.D., New York. A paper (subject to be announced) by Thomas G. Morton, M.D. Compression Myelitis in Pott's Diseases, by George R. Elliott, M.D., New York. Anatomy of the Foot and its relation to the Operation of Tenotomy, by Lewis Hall Sayre, M.D., N.Y. Anatomy of the Bladder and its relation to Rupture, by I. N. Bloom, M.D., Louisville, Ky. Dissection of a very Young Human Embryo, by Augustus C. Bernays, St. Louis, Mo. On the Urethra, by Reginald Harrison, F.R.C.S., &c., Liverpool, England. Anatomy and Surgical Importance of the Renal Capsule and the Perirenal Adipose Tissue, by L. H. Dunning, M.D., &c., South Bend, Ind. Specimen, by W. T. Oppenheimer, M.D., &c., Richmond, Va. The Didactic Teaching of Human Anatomy, by F. W. Langdon, M.D., &c., Cincinnati, Ohio. A Contribution to the Pathology of Spinal Caries, by Milton Josiah Roberts, M.D., &c., New York. Umbilical Cord, by C. W. Kelley, M.D., &c., Louisville, Ky. Frozen Sections of the Male Pelvis showing relations of Peritoneum to Rectum, Bladder, and Median Line of Abdominal Wall, with special reference to Suprapubic Cystotomy, by Albert B. Strong, M.D., &c., Chicago, Ill. The Mesocephalon of the True Reptile, by E. C. Spitzka, M.D., &c., New York. The Anatomy of the Rectum and its relation to Reflexes, by J. M. Matthews, M.D., &c., Louisville, Ky. Paper (title not announced), by L. S. McMurtry, M.D., &c., Danville, Ky. Studies in Brain Surgery, by Hal. C. Wyman, M.D., &c., Detroit, Mich. The Peritoneum and its relation to Injuries of the Bladder, by N. B. Carson, M.D., &c., St Louis, Mo. Contribution to the Pathology of Knee-Joint Diseases, by Milton Josiah Roberts, M.D., New York. The Groove of the Central Veins on the Inner Table of the Calvaria, by Frank E. Fry, M.D. &c., St. Louis, Mo. Anatomical Considerations concerning the Application of Plaster-of-Paris Dressings to Fractures of the Femur, by W. B. Rogers, M.D., &c., Memphis, Tenn. The Anatomy of the Urethra and Prostate Gland and Bladder, with special reference to Surgical Relief for Enlarged Prostate in Old Men, by Wm. C. Wile, M.D., &c., Philadelphia, Pa. Presentation of Anatomical Specimen, by George Benjamin Johnston, M.D., &c., Richmond, Va. Anatomical Points involved in Loss of Complete Scalp, including one Ear and greater portion of the Eyelids, by F. C. Schaefer, M.D., &c., Chicago, Ill. The Colon, by S. K. Crawford, M.D., &c., Chicago, Ill. Anomalies of the Middle Thyroid Artery, with presentation of Specimen, by Max J. Stern, M.D., &c., Philadelphia, Pa. The Anatomy and Relations of the Cæcum and Vermiform Appendix, with special reference to the Surgery of the Parts, by Hermann M. Briggs, M.D., &c., New York. On Comparison of Twenty Superior Maxillary Bones, by E. M. Wilson, M.D., &c., Bridgeport, Conn. The Destruction of Dissection-room Offal, by H. C. Boenning, M.D., &c., Philadelphia, Pa. Anatomical Points of Value in the Diagnosis and Treatment of Some of the Joint Affections, by N. Stamm, M.D., &c., Fremont, Ohio. A Plea for some Reforms in the Present Methods of Teaching Anatomy, by Wm. Perrin Nickson, M.D., &c., Atlanta, Ga. The Anatomy of the Vermiform Appendix, with some of its Anomalies, by F. M. T. McKennan, M.D., &c., Pittsburg, Pa. The Proper Methods of Teaching Anatomy, by A. P. H. Leuf, M.D., &c., Philadelphia, Pa Paper (title not announced), by Joseph Dickson, M.D., &c., Pittsburg, Pa. Reports of Three Cases of Nephrectomy, with special reference to the Anatomy, by Geo. Halley, M.D., &c., Kansas City, Mo. The Anatomy of Stricture, by J. Kneely Rhodes, M.D., &c., Philadelphia, Pa. The Pivotal Point in Anatomy and the Principle Underlying it, by W. H. Triplet, M.D., &c., Woodstock, Va.

HOLIDAY COLONY IN SPAIN.

El Siglo Médico states that a small "holiday colony" of eighteen poor children, belonging to the public elementary schools of Madrid, has just been taken by Señor Coscio, Director of the Pedagogic Museum, and two schoolmasters to San Vicente de la Barquera, where they will remain a month. This is the first "holiday colony" which has been publicly arranged in Spain, and seems to have excited a good deal of interest, the Inspector-General of Education, Señor Robledo, and a large concourse of people having attended to witness the departure of the little travellers. The Northern Railway Company, too, has exhibited its willingness to participate in this useful scheme by making a reduction of 75 per cent. on its fares for the benefit of those comprising or accompanying the colony. Though the number of children is very small, it is to be hoped that in future years means may be found to extend the boon to a far wider circle.

M. AUDRY ON THRUSH.

M. AUDRY, writing on the evolution of the fungus of thrush in the *Revue de Médecine*, states that he finds it can be cultivated just as well in neutral or alkaline media as in those which have an acid reaction. This tends to diminish the importance which has usually been attributed to the acidity of the mouth in the etiology of thrush. It is, he thinks, possible that this acidity is the consequence rather than the cause of the spread of the disease, for he has remarked that broth cultures of the fungus which were neutral at the commencement of the experiment became slightly acid. It was found to develop well in media containing glycerine, but not in pure glycerine. It could not be cultivated in broths containing borax, so that M. Audry's observations tend to confirm and justify the practice of treating thrush by local applications of this substance

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

DUNLOP, JAMES C., M.B., C.M., M.R.C.S., has been appointed Resident Surgeon to Chalmer's Hospital, Edinburgh.

DUNSTAN, ROBERT, M.R.C.S., L.S.A., has been appointed Medical Officer for the St. Just District of the Truro Union.

GRIFFITH, T. WARDROP, M.B., C.M., has been appointed Professor of Anatomy in the Yorkshire College, Leeds.

GROSS, CHARLES, M.B., B.S.Lond., F.R.C.S.Eng., has been appointed Medical Superintendent of the New Infirmary at Champion-hill of the St. Saviour's Union.

GWYNNE-HUGHES, DEVEREUX, L.R.C.P., L.R.C.S.Ed., has been elected Resident Medical Officer at the Sydney Hospital.

JONES, DANIEL M., M.D., C.M.Ed., has been appointed Medical Officer for the Marske District of the Guisborough Union.

KING, THOMAS RADFORD, M.D.Ed., has been appointed Medical Superintendent of the Lunatic Asylums at Porirua and Wellington, New Zealand, vice Levinge, transferred.

LEVINGE, EDWARD GEORGE, M.B.Dub., L.R.C.S.I., has been appointed Medical Superintendent of the Christchurch Lunatic Asylum, New Zealand, vice Hacon, resigned.

OLIVER, JOHN W., M.D., M.Ch., M.A.O. Roy. Univ. Irel., has been appointed Assistant Medical Officer to the Hackney Infirmary, Homerton, E., vice R. Evans, M.R.C.S., L.R.C.P., resigned.

WILLIAMS, W. C., has been appointed Analyst for the County Palatine of Lancaster.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ABERDEEN UNIVERSITY.—Six Examiners for Graduation in Medicine. Grant £30 per annum.

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DEVON AND EXETER HOSPITAL.—House-Surgeon. Salary £120 per annum, increasing £10 per year to £150, with board and lodging.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Two Resident Clinical Assistants. Board and lodging, but no salary.

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WESTERN DISPENSARY, Rochester-row, Westminster, S.W.—Attending Medical Officer.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On the 28th ult., at Ainslie-place, Edinburgh, the wife of J. Graham Brown, M.D., F.R.C.P.E., of a daughter.

BUNN.—On the 28th ult., at Ferndale, Upper Norwood, the wife of C. Grinling Bunn, M.R.C.S., L.R.C.P., of a daughter.

GRANGE.—On the 29th ult., at Mansfield House, Moffat, N.B., the wife of W. D'Oyly Grange, M.D., of a son.

PERN.—On the 25th ult., at Botley, Hants, the wife of Alfred Pern, F.R.C.S., of a son.

THOMPSON.—On July 28th, at Madras, the wife of Surgeon C. M. Thompson, Indian Medical Service, of a daughter.

MARRIAGES.

ARTHY—FINDLAY.—On the 31st ult., at the Parish Church, Stretford, Lancashire, George F. S. Arthy, M.R.C.S., to Annie Eliza, eldest daughter of Bruce Findlay, of the Royal Botanical Gardens, Manchester.

FENTON-JONES—FOSTER.—On the 25th ult., at St. James's Church, Tatham, by the Rev. Arthur W. Foster, assisted by the Revs. R. Denny and J. C. Hyatt, William Hugh Fenton-Jones, M.D., A.M.Oxon., to Alice, eldest daughter of the late William Foster, of Hornby Castle, Lancashire, and Harrowins, Yorkshire.

JACKSON—RAY.—On the 26th ult., at St. Mark's, North Audley-street, Allan Heslop Jackson, M.R.C.S., to Eva Lindley, elder daughter of James Ray, M.R.C.S., of Lowestoft.

RANDALL—BEAUFOY.—On the 16th ult., at Colty Parish Church, Bridgend, Glamorganshire, Wyndham Randall, M.R.C.S., L.R.C.P.Ed., to Emma, youngest daughter of the late John Beaufoy, of Coventry.

DEATHS.

DEFRIEZ.—On the 29th ult., at Bethnal-green-road, Joseph George Defriez, M.R.C.S., aged 66.

DICKSON.—On the 7th ult., at St. Julien's, Malta, Sir Joseph Ritchie Dyon Dickson; for forty years Physician to Her Majesty's Legation at the Court of Persia.

MITCHELL.—On the 26th ult., at Walton-on-the-Naze, Jas. Barr Mitchell, M.D., L.F.P.S., of Titchfield-terrace, Regent's-park, and formerly of Paris, aged 69.

NICOLSON.—At Cumberland-street, Edinburgh, John Balfour Nicolson, M.D., R.N., aged 68.

IN MEMORIAM.

WAKLEY.—On August 30th, 1886, at Heathlands-park, Longcross, Chertsey, Surrey, James Goodchild Wakley, M.D., for twenty-five years Editor of THE LANCET, youngest son of the late Thos. Wakley, M.P.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

To Correspondents.

WE tender our best thanks to those gentlemen who have kindly supplied us with the returns and prospectuses upon which the information given in this Students' Number of THE LANCET relative to the various medical examining bodies, hospitals, and medical schools of the United Kingdom is based.

The present number being principally devoted to information especially interesting to students, we are necessarily compelled to defer the publication of communications on other important subjects.

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